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MODERN METHODS
AND THE
ELEMENTARY CURRICULUM

THE CENTURY EDUCATION SERIES

EDITED BY

CHARLES E. CHADSEY

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MODERN METHODS
AND THE
LEMENTARY CURRICULUM

BY

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EDITOR'S INTRODUCTION

This volume has been prepared and is submitted to e educators of the United States to meet two very al conditions: first, there is an increasing number of acher-training institutions that desire a text which tempts in a systematic manner to consider the place, rpose, and content of the various subjects comprising e curriculum of the modern elementary school; cond, the teachers of the elementary school in far too any instances have never had professional preparation their work, are not in touch with the more recent vestigations either as to content or methods of the rriculum, and, therefore, need a text which without tering into elaborate or technical discussions presents reliable analysis of the more generally accepted nclusions affecting the elementary course of study.

There are many investigations of importance which ve to do with the elementary school that this volume es not attempt to consider. It keeps in mind contently, however, the beginning student or teacher who eds to become intelligently oriented as to the fundaental objectives of elementary education and their empted realization in the various subjects of the rriculum. This involves some appreciation of the cepted analyses of the dominant characteristics of

children from the biological, psychological, and sociol
cal points of view. To appreciate the place and imp
tance of the subjects studied in the elementary school
beginner needs also to get some conception of the
children learn—through motor activity, imitat
association of ideas, and finally through reflective thi
ing—but dependent upon this intelligent orientation
beginner needs to know how fundamental principles
applied in the actual work of the school.

The author in attempting to accomplish this re
has presented a discussion of the various subjects of
curriculum. He has offered from the standpoint of
most generally accepted practices detailed suggesti
concerning the content and method of presenting
various courses of study. The editor of this se
believes that this volume should render a very real
vice to a very large number of ambitious teachers
wish to organize their ideas concerning elemen
education in the light of present educational practic

CHARLES E. CHADSE

PREFACE

The treatment of the elementary course of study in this book is a mediation between the philosophy of Professor John Dewey and some of his disciples, notably Meriam in his recent book, "The Elementary Curriculum," and the old type of course of study which treated the text-books and outlines as something almost sacred.

Continually the author has endeavored to point out how these two points of view are not so antagonistic as they seem, for he has endeavored very earnestly to state significant aspects of the course of study in connection with the native instincts and capacities and ideational processes of children. In attempting to do this the writer has endeavored to bring to the discussion such scientific knowledge as has been discovered by educational psychology and experimental pedagogy. Moreover, earnest attempt has been made to bring into the child's life all those valuable experiences in our modern life which must be understood and appreciated by modern democracy.

The justification for this, another treatise on the elementary course of study, is the fact that comparatively a very small number of the teachers in the elementary schools are so situated as to have immediately the results which are continually being discovered in the new

aspects of educational theory and practice. It is doubt ful if one elementary teacher in ten ever has the privileg of seeing or owning important contributions which ar made yearly through the Year Books of the Nationa Society for the Study of Education, to say nothing abou some of the more technical journals. The author offer no excuse for playing the rôle of codifier for these newe findings in education. For he regards this as a distinc sort of contribution necessary for professional progres Indeed, a good historical argument may be made for th codifier, if necessary.

Throughout the discussion there has been a mos earnest attempt to tell *what* to do rather than to discus things not to do. This we consider a constructive, rathe than a negative and pathological, treatment of the prob lem. The author believes profoundly in the newer psy chology, which emphasizes continually the right sort o habit formations to the exclusion of other types of ex perience.

It has been estimated that there are at least four hun dred thousand elementary teachers in the United State who have not completed a two-year college or norm school course. To all of these this book should offer som immediate help. There are at least one hundred thou sand other teachers who are in normal schools an teacher-training work in high schools to whom the boo ought to offer immediate values. There are, moreove more than a million men and women enlisted in paren teacher organizations and perhaps nearly as many mo women who are active in the various sorts of club work

whom this book should make a direct appeal. For if democracy is to adjust itself to the kaleidoscopic changes in economic, political, social, and moral conditions, the progressive members of this democracy must utilize the elementary school with great earnestness and intelligence. The author believes that the educational principles elaborated in this book will help to make some contribution to that end.

The author recognizes his indebtedness to numerous men and women who have contributed to the present-day tendency of scientific education in books, monographs, and studies of various kinds. In general, specific citation takes care in part of this obligation. However, in such a treatise as this it is impossible to cite every influence which has been of value to the author. The writer is under very direct obligation to his former teacher, Dr. Charles H. Judd, director of the school of education of the University of Chicago, who quickened in a very positive way his interest in the scientific aspects of modern education, and Professor Samuel Chester Parker, of the same institution, for the point of view of treating a method situation always from the historical standpoint; and to Doctor Charles A. McMurry and Doctor Thomas Alexander, professors of elementary education in George Peabody College, for guidance in the study of the fundamental problems of the elementary school. The author is under very great obligation to a number of teachers and pupils who in the past twenty years have suffered under his supervision and instruction, especially those of the Central Missouri State Teachers' College during the

last five years who have been the victims of his expe
mentation.

A number of my colleagues in Central Missouri Sta
Teachers' College have contributed directly by readi
and criticizing special chapters. Professor W. W. Park
head of the English department, read all the manuscri
to improve the English. Likewise, he read all the pro

Throughout the book, under the topic Measuring R
sults, references have been made to the standardiz
tests. Practically all of the standardized tests may
secured from one of the following sources: The Pub
School Publishing Company, Bloomington, Illino
World Book Company, Yonkers-on-the-Hudson, N
York; and Teachers College, Columbia University, N
York.

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Warrensburg, Missouri.

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MODERN METHODS
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CHAPTER I

OBJECTIVES IN MODERN EDUCATION

In modern times, when the school became a definitely organized institution of society, it was necessary to state its aims and purposes. Consequently, at various times, philosophers and others have undertaken to define the function of this institution. For example, Herbart and his disciples declared the purpose of the school to be the formation of character, or moral character. Spencer and his followers defined the aim of education as complete living, while Dewey and his followers have declared for social efficiency as the main aim of public education. Some school men have defined the purpose of education as disciplinary. Doubtless there is some basis in fact for any one or all of these statements. However, at the present time, it would seem to be desirable to define the purposes, or as we shall prefer to say the *objectives* in modern education, in more detail and in more concrete terms than any of the foregoing. Not that it is possible for any final statement of these objectives to be made, but the more significant aspects of the modern educational

problem may be suggested. To the writer there are at least five important objectives which may be stated. There can be no debate about the fundamental value of each, though there might be some controversy concerning the order and relative importance of them. They may be stated as follows: (1) Health and physical efficiency. (2) The mastery of the tools of formal learning such as reading, spelling, writing, drawing, and number combinations. (3) Vocational efficiency. (4) Education for play and recreation. (5) An appreciation of the great moral values in the race experience. These five objectives will be taken up in order for a brief discussion.

Health and Physical Efficiency.—In order to realize any of the best values of life, a human being needs such physical efficiency as will enable him to participate in the activities of common human experience. There can be no genuine satisfaction in work or play without a considerable measure of physical efficiency which is predicated on a normal biological development. The reproduction and perpetuation of the race are in themselves conditioned on physical fitness.

In order that these conditions may be obtained it is necessary for us to know about the important scientific facts concerning the nutrition for the normal growth and development of a child at the various stages of its life. Moreover, it is necessary that the child have appropriate clothing for the various seasons and climates. We are beginning to learn the profound importance of suitable home and school conditions with regard to heating, sunlight, and ventilation in order that a child may grow in a

normal way. We are learning that sleep is a fundamental factor in the normal growth and development of a child. The neglect of these factors, or any one of them in fact, tends to reduce the efficiency of the child's development. Moreover, with this condition will come fatigue, a low resistance, the possibility of disease, and the permanent impairment of the child's physical being.

Obviously it is one of the functions of the elementary and the secondary school to be major factors in the life of the child to the end that he may come through these phases of school life with a large fund of good health habits and a still larger fund of health idealism which must be kept up throughout life in order that the person may become truly happy and efficient.

Mastery of the Tools of Formal Learning.—Since books, newspapers, periodicals, etc., play so large a part in modern education, and since speech and writing constitute the primary means of communication, the importance of acquiring the ability to use these tools is quite obvious. Among the more important features of this problem may be mentioned the acquiring of good habits of oral and silent reading, good habits of oral and written composition; learning how to write and to spell as corollaries of these skills; an accurate knowledge of number processes; some knowledge of drawing and singing for the reason that these techniques also serve to unlock a vast literature in which the emotional experiences of the race have been recorded. In the realization of this objective, it should be observed that no one of the tools is an end in itself, but all of them are important means. It

should be remembered, however, that the mastery of the tool itself should be secured in connection with the most worth-while experiences possible, if it is to be accomplished with any considerable immediate satisfaction to the learner. Too much school practice at the present is based on the theory that skill in the use of these tools is something to be acquired regardless of the material to be used in connection with a fundamental value. This is bad psychology because all the subject matter which has been accumulated by the race has ordinarily been discovered and invented in the midst of a situation which presented an immediate purpose and value.

Vocational Efficiency.—One of the marked characteristics of modern democracy is that each member of society must have some work to do, no matter whether the work be of a low grade industrial nature or a profession requiring very high technical qualifications and skill. Because of our vast resources in this country and the ease with which it has been possible in times past to secure some sort of a livelihood, society as a whole has not had much of its attention directed toward this important problem. However, with our increased complex industrial life and the substitution of the factory system in so many types of industry for the old-fashioned domestic system, it is necessary for us to give increased attention to this important phase of our life.

Children need to recognize very early in their experience the fundamental importance of seeing a life in terms of work, rather than in terms of pleasure and leisure. Children need to recognize work as the normal sort of hu-

man life. Just how early we shall begin to determine the choice of vocation is a much mooted and discussed question, but the outstanding fact about it all is that children do begin to choose very early the sort of work they would like to undertake. Therefore, it is evident that the school should begin at the earliest possible moment to point out the more significant elements involved in the various types of our vocational activities. We need to point out the varied kinds of skill necessary for success, the periods required for the acquiring of these skills, and the possible returns after the skills have been secured. And more important than all for the ultimate welfare of democracy, we need to acquire the will to work and to contribute our share to the economic and social welfare of the community and the state. More and more as we require the knowledge and technique necessary, we will try to discover the aptitudes and capabilities of children in order that the smallest amount of waste in trying to find work will be made.

Play and Recreation.—No doubt society has been somewhat slow to realize the fundamental value of play and recreation as a necessary part of a normal human life. At different times in the world's experience, classes have had the privilege of enjoying the play values which have been accumulated in various ways. But democracy now fully recognizes the fundamental importance of play and recreation in the life of every human being. We recognize this in the length of the working day and in the great democratization of the so-called fine arts. Practically all the forms of art including music, painting, sculp-

ture, literature, and the drama are now within the reach of nearly all of the people at the very highest level possible for appreciation.

At the present moment we are squandering millions of dollars annually for the lower forms of entertainment, for those forms which simply stimulate, excite, enervate, without bringing the satisfaction and exhilaration which ought to come to our emotional life. Fundamentally it is the business of the school to organize these values so they may be genuinely the heritage of all the people.

Appreciation of the Moral Value in the Race Experience.—The great moral values of the race are expressed in personal virtues such as, "obedience, kindness, honor, truthfulness, cleanliness, cheerfulness, honesty, respect for self and for others, helpfulness, industry, economy, power of initiative, justice, usefulness, patriotism, courage self-control, prudence, benevolence, politeness, perseverance, fortitude, sympathy, conservation to duty, unselfishness, comradeship, patience, temperance, hopefulness, determination, and fidelity. Pupils should not only have some idea of the meaning of these virtues, but they should be trained in the practice of them until they become fixed habits." * Of course the mere statement of these virtues is not a matter of any significance . They have to be made dynamic according to the principles which will be discussed in the chapter on moral education.

A second set of moral values must be provided in connection with the family and the home. All children have some sort of family and home relationships. To under-

* "Report of the National Committee on Moral Education."

stand the modern family in its complex relationship to the various other institutions is absolutely essential to the preservation of this basal institution. If the monogamous family is to persist, the present generation needs to understand it much better than we do at present. A large amount of concrete material to help in this matter is to be found in the chapters on manual training, history, home economics, and moral training.

A third set of moral values must be provided in connection with our numerous civic relationships. Each individual needs to have the knowledge and the will which will enable him to act his part well as an efficient member of the neighborhood, town or city, state, and nation, with some appreciation of the great international situations which are important at the present moment.

Another set of moral problems has to do with instruction which must be secured through the institution known as the church. However, this discussion is outside the field of this treatise.

In a recent bulletin issued by the Bureau of Education * the Goal of Education in a Democracy has been well defined as follows:

"The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow members and of society as a whole.

"Consequently, education in a democracy, both within and without the school, should develop in each individual

* *Bureau of Education, Bulletin 1918*, No. 35, "Cardinal Principles of Secondary Education."

the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends."

PROBLEMS

1. What were the objectives for Chinese education?
2. Describe the training of a Spartan boy.
3. Was the education of the Athenian boy one for social efficiency?
4. Give an account of the training of a medieval knight.
5. Give an account of the training of a monk under the Benedictine rule.
6. What is social efficiency according to Bagley? See *Educative Process,* Chapter 3.
7. What is complete living according to Spencer? See *Education.*
8. What was Milton's aim of education?

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Monroe: *Textbook in History of Education.*
Spencer: *Education.*
Bagley: *The Educative Process.*
Dewey: *Democracy and Education,* Chapters 7, 8, and 9.

CHAPTER II

DOMINANT CHARACTERISTICS OF CHILDREN

The Child at Ages Six and Seven.—The problems of education should be defined in terms of children and their instincts, capacities, habits, and ideals. The following very brief description might be indefinitely elaborated, but for our purpose it is sufficient. In the following paragraphs we will discuss the biological, psychological, and sociological characteristics of children about the time they enter the elementary school.

1. Biological Characteristics.—Children at this time range in height from thirty-four to forty-six inches, the average being slightly more than forty inches, and the normal gain for some time is roughly about two inches per year. Children at this age should weigh from thirty-four to forty-six pounds. The average being about thirty-five pounds, with a normal gain of four pounds per year. It is a fairly safe rule to say that the typical American child should weigh a pound for every inch he is tall. The sitting height is relatively greater when compared with the standing height for the reason that the legs are increasing in muscle power rather than in length. Boys are slightly heavier than girls at this age and grow somewhat faster than girls. Normally the brain has already attained nearly eight-ninths of its adult weight.

At this period the child should have his full set of milk teeth, and toward the end of the time the first molars will appear.

The sensory neurones are usually in advance of the development of the motor neurones. Moreover, those neurones which control the hands are less well organized than those which control the trunk and arms. At this time the sense organs are very easily injured or strained. There is a rapid and marked change from cartilaginous to osseous tissue in the skeleton.

The child is very susceptible to colds and children's diseases, and every precaution should be taken at this time to minimize the possibility of contagion. There is acute sensitiveness to pain and variation from normal temperature.

These facts should have a very direct bearing on the length of school session, the length of class exercises, the frequency and forms of play, the problems of lighting, heating, ventilation, school discipline, and the amount and the kind of work required.

A large amount of food taken at frequent intervals is required for this youngster. Between fourteen hundred and seventeen hundred calories daily of milk, cooked fruits, with little meat, is necessary to satisfy the appetite of this vigorous child. Specialists in nutrition say that children should have one-half as much fat and about one-third as much carbohydrates as the adult.

At this time extreme care should be taken to see that the child gets ten or eleven hours of sleep in each twenty-four. This factor is one of the most important in the

development of a child's life, but as yet we have not given it as much recognition as it demands. There seems to be something queer about the desire of a small child to remain up until the older people of the household retire. However, it is absolutely necessary for the well-being and normal development of the child that an adequate amount of rest be secured. There is no absolute scientific standard about the number of hours' sleep required, as the temperament of the child has something to do with it, but children between the ages of six and nine should have eleven or twelve hours sleep per day, and children from ten to twelve years of age should have approximately ten hours of sleep. In the chapter on health and physical education a detailed discussion is made of this matter.

Indeed it may be said with reference to this aspect of the child's life, as in others, that his activities are unorganized and his movements wastefully diffused.

2. Psychological Characteristics.—Some of the dominant psychological characteristics of the young child are his extreme impulsiveness and spontaneousness, and his openness to all kinds of suggestion. The near complete absence of reflection in any of its forms is to be observed. The playthings and toys of to-day are broken and worthless to-morrow. The games and playmates of to-day may likewise go into the discard on the morrow. Curiosity is unbounded, but it takes into consideration no sense of adult values. Without much consciousness of the fact, the youngster imitates in some crude fashion every form of activity in the life about him. Indeed he

dramatizes the grosser aspects of his home life and his community observations. Adults usually think of these imitations as play and foolishness. However, it should be remembered that this is a part of the race economy which enables the child to adjust himself to his environment.

At this time the youngster is self-centered and therefore selfish. His toys, books, or anything else for that matter, may not be used in any way by others even though at the moment he has no use for them himself. Only with reluctance does he give his consent to the sharing of these things with other children. *My* and *mine* are two of the most significant words used to express his egocentric attitude. Out of this very often appears one of the manifestations of the fighting instinct with which we are all familiar. At play and in games this same individualism manifests itself in various ways. Therefore only such games as permit the normal expression of this type of individualism can be thoroughly engaged in by him. Both the home and school should recognize more definitely than at present this characteristic. The youngster cares not for anybody's elaborate set of rules by which to play. If two or three children are left alone, very soon they evolve their own code under which to play. At school provisions should be made for play, taking into account this dominant trait. Competitions in the main will have to be on the individual basis rather than by groups.

All during the early years of the elementary school the

child values very much the approval and friendliness of his teacher, his mother and father, and adults who are his friends. Within reasonable limits this is one of the very important motives by which his activities may be directed. It should be noted, however, that jealousy may also be a factor in determining the child's reaction.

The imagination is excessively fanciful, and sometimes it may seem over-active. During this time the child sometimes is unable to discriminate between actual experiences and fanciful ones. Consequently he may tell the most impossible stories about his experiences. Sometimes parents and teachers who do not recognize this fact attach undue importance to some weird tale which a youngster relates. Generally we think of the emotions of the child as being easily excited and uncontrolled. His joy, sorrow, or anger may be easily aroused, but likewise they are experiences of but a moment. We should not expect of children at this period continuity of purpose and ability to discriminate.

3. Sociological Characteristics.—As was indicated in the former paragraph this is the age of extreme individualism. Therefore, the social and moral standards of the household or the community have very little meaning or significance to the child. And his typical reaction is to try to gratify his wants by managing in some fashion the other members of the family or group of which he happens to be a member. Very soon children learn the best way to obtain from their elders the privilege of gratifying their desires. Sometimes the privilege is obtained

by means of crying, sometimes by teasing, again by violent exhibitions of temper, and on other occasions by expressions of affection.

At this time moral values are exceedingly nebulous and are usually measured in some form of personal return. However, it is possible for children to learn what is expected of them in family life; and as soon as they enter school, certain social and moral habits must be used. It is not to be assumed that these values are understood by the child in any considerable detail, but they have to be set up in a more or less arbitrary fashion. Such habits are the care and control of the body, cleanliness of person, certain simple courtesies of life, and obedience to authority in the home and the school.*

The Child at Ages Eleven and Thirteen.—Ordinarily we think of this as the period of beginning adolescence. It is not to be understood that there is any abrupt or violent change at age eleven, as it is well understood that growth in all of its aspects is a fairly regular phenomenon. We know that between the years of eleven and fourteen at most, both boys and girls exhibit much bodily awkwardness and erratic thinking and conduct. Everyone whose business it is to have any relation with children at this age should recognize these characteristics as altogether normal and treat them accordingly. They should be considered with much sympathy, patience, and forbearance both by teachers and parents. An unsympathetic and intolerant attitude simply makes a great chasm between the adult and the adolescent.

* Norsworthy and Whitley, pp. 282-283.

1. Biological Characteristics.—We find children at this age measuring in height within a range from fifty-one to fifty-eight inches, fifty-three inches being considered the average, with boys slightly taller than girls. Generally about the twelfth year girls make a more rapid growth than boys. The range in weight in children of this age is from sixty to seventy pounds, girls averaging sixty-eight and boys seventy-two. It is not unusual, however, for girls in early adolescence to overtake boys in height and sometimes in weight. The girls usually have somewhat less lung capacity than boys.

During this period the rapid growth of the skeleton causes a poor coördination of the muscles, and the symmetry of the body may be materially altered. As was observed above, this is the awkward and gawky age, due to poor muscular coördinations. It is thought by some that the great desire to play on the part of boys has for its ultimate value the reorganization of the muscular habits. The brain has practically reached its normal size and weight. Further changes are made only in the cell life of the organ. During this period, children are not so susceptible to diseases. Eleven-year-olds usually have incisors, first molars, and the front premolars, and it is not unusual for canines and back premolars to appear in a year or two.

Children require more food than for the previous period. It has been estimated that from eighteen hundred to two thousand calories in food values is needed daily for the adolescent child. This is about two-thirds as much food as is required by a full grown man. On the whole the

diet should be plain with a good deal of variety. Rich concentrated foods should be avoided. Because of the almost never-ending desire for food, choice should be made of bulky material to avoid digestive disorders. From nine to ten hours of sleep are required for the best health and growth of adolescents. Moreover, it should be taken in a well-ventilated room. It should be remembered also that this is the period in which certain bodily changes occur on account of sex. Usually this development occurs without any serious physiological disturbances. However, it is always possible that the problem may demand special consideration and attention.

2. Psychological Characteristics. — Among the more important mental characteristics to be noted at this time may be mentioned the tendency to criticize all forms of truth and even the existing institutions. Intense rivalries and emulation of all kinds are manifested both in work and play. The fighting instinct usually manifests itself in personal conflict and in the continual desire for games which involve combat features. There is usually manifested a tendency to tease and torment and sometimes "bully" the weaker members of the group. It is not unusual for the adolescent to possess an inordinate desire to show off or to attract attention. However there are others at this time who are extremely shy and retiring. The gaming, sporting, or taking-a-chance attitude in some form or other is quite characteristic of the early adolescent. We should not expect adolescents to act with deliberation or constancy of purpose. Caprice and rashness, stupidity and stubbornness may be manifested

on some occasions, while on others indifference, self-control, and wonderful will power may be exhibited.

3. Sociological Characteristics.—Very early in the adolescent stage boys manifest a tendency to organize various kinds of gangs, due to the gregarious instinct. Prior to this time the child has gladly and willingly associated with the adult, but with the beginning of adolescence the adult is discarded for one or more of the fellows. In the case of girls the groups are smaller than those of boys. Perhaps the most characteristic relation is that to be found in chumming. This is the period when coöperative games, such as football, baseball, and basketball are of consuming interest to boys. No sacrifice or suffering is too great if the interest of the team is to be subserved thereby. It is the time when stories and tales of action and heroism make peculiar appeal to both boys and girls. Vocation is considered in the light of its social bearings for the first time. There will be much shifting and changing about the great values involved in any kind of work.

With regard to the other sex two very opposite attitudes may manifest themselves. Sometimes the boy idealizes the girl, and sometimes he thinks her only a horrid nuisance who is in the way to prevent his having a good time. She may be a stupid baby or an angel, whichever fancy takes control. Likewise girls may manifest these opposites in which boys are either impossible barbarians or else knights and heroes.

This is the period also when moral and religious values should be acquired. Ideals of loyalty which may have

their inceptions in gang relation need to be expanded and enriched to include the finest values of life. The conscientiousness and service which the gang demands may be magnified into habits of the highest forms of virtuous living.

The teacher who proposes to control and direct adolescent boys and girls needs to recognize these fundamental characteristics as perfectly normal and undertake to make them the background for a development into the significant values of life. After all whether it is a matter of work or play, nature has provided the instincts which must be made the basis for education and character.

PROBLEMS

1. What is meant by the biological age of a child?
2. Give examples of schoolroom conduct due to impulsiveness of primary children.
3. How may the gang instinct be utilized with adolescent boys?
4. Explain the psychology involved in children's lies.
5. Observe small children's reactions to typical schoolroom suggestions.
6. Do you know of any malformations of the body due to unhygienic schoolroom conditions?
7. What types of play appeal to children in the primary grades?
8. Account for the awkwardness and shyness of the early adolescent boy.
9. What forms of play and recreation may be emphasized profitably in the grammar grades?
10. In what ways may rivalry and emulation be used in the grammar grades to good moral ends?
11. In what ways do the characters in Tarkington's "Gentle Julia" illustrate adolescent traits? "Tom Sawyer"?

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CHAPTER III

HOW CHILDREN LEARN

It is not simple to define or describe all the ways by which children learn and it is not the purpose of this chapter to do more than set out the obvious features of the learning processes. Moreover, no attempt is made to give the discussion a technical, psychological bearing.

For practical purposes the following four ways of learning may be made to include the major processes by which children learn:

1. Through motor activity.
2. Imitation.
3. Association.
4. Reflective thinking.

These will be taken up in order for some detailed discussion.

Learning Through Motor Activity.—In motor activity we include all forms of manipulation of the body as well as of things. It includes construction in its various types as well as destruction. The baby learns to move its hands and feet, and to grasp and hold articles. It handles balls, toys; in fact, through touch and handling the child sets out to master the world. And we make sense perception the basis for the learning process in the earlier phases of

the educational procedure. Motor activity involves the so-called trial and error method which the child uses constantly. The holding of writing material, pencils, and books, the working at the sand table, drawing, manual training,—all these include motor activity. Correct notions of number and form have to be acquired by means of manipulation. Wrestling, jumping, fighting, climbing, games of all sorts involve this form of activity. The old proverb that the small child cannot be kept still is a profound truth. The small boy whose observation that they did nothing in school but *sit still* and *behave,* expressed in crude but positive terms child nature's criticism on a learning situation which does not take into account this feature of child life.

Learning Through Imitation.—Imitation is usually included in any catalog of instincts. However, at the present moment some psychologists are disposed to question it as a general capacity. No doubt this is due to the fact that we are questioning at the present time general capacities and powers and relying more and more on specialized functions or capacities. Be that as it may, for practical purposes we know very well that children do have a tendency to make all sorts of imitations. In his monumental work on psychology, James says, "This sort of imitativeness is possessed by man in common with other gregarious animals and it is an instinct in the fullest sense of the term." * Kilpatrick, in discussing imitation in children, makes the following significant and suggestive statement, "Everything from the crowing of chickens

* James, "Psychology," Vol. II, p. 403.

to the whistle of a locomotive, from the wriggling of a snake to the preaching of a sermon, is imitated. Nothing in his environment, physical or social, escapes the child." *

The importance of this native capacity can hardly be over-estimated in connection with learning processes. We speak of acquiring the *mother tongue* because the child learns the language of its mother or of the household. Likewise the associations of the street may add in a very positive way to the good habits or the bad habits of language achievement. We know that the small child may learn two or more languages if provided with a suitable, vital association with other people who speak the languages. In like manner children learn to read, in oral reading at least, through imitating the sounds provided by the teacher and other children. The earlier stages of the child's drawing and manual training are almost altogether matters of imitation. In learning to sing, the child imitates the tones and rhythm of his teacher and of other members of his class. Moreover, it is to be observed that the child learns much about pitch and quality of tones by imitating birds, other animals, engines, and automobiles. In the newer forms of methodology, such as dramatization and the socialized class exercises, imitation is an exceedingly important factor. For in the dramatization of the story or the reproduction of some important historical event, the child makes a vital attempt to live through the story as the dramatization takes place. In the use of this method we find that moral and esthetic

* Kirkpatrick, "Fundamentals of Child Study," p. 131.

enthusiasms as expressed in music and history may become a part of the significant possessions of the child. Personal hygiene may be transformed from a set of rules and laws into an interesting and profitable health game. And finally we need to remember that children imitate people of all kinds about them.

Out of this fact must come an appreciation of convention and moral values. This has been the great blunder of much of our teaching of morals. We have thought that children learned by precept. Pedagogically, then, the conclusion is obvious. The child's environment should provide for him those situations, forms, and ideals worth imitating. This is true for the household; it is likewise true for the teachers in the school.

Learning Through Association of Ideas.—Professor Thorndike most adequately summarizes the whole story of association under what he calls commonly neglected rules as follows, "Put together what you wish to have go together. Reward good impulses. Conversely, keep apart what you wish to have separate. Let undesirable impulses bring discomfort." *

All students who have taken even an elementary course in psychology know very well that there are certain fundamental laws of association as formulated by the psychologists, namely, association by similarity, association by contrast, and association by contiguity. These are usually condensed into two laws, namely, association by contiguity in space and time, and association in similarity and contrast. However, besides these laws, which are

* Thorndike, "Principles of Teaching," p. 110.

sometimes called primary laws of association, there are other secondary principles which need to be kept in mind in learning by association, such as the laws of primacy, recency, frequency, and vividness.

By the law of primacy we mean that, other things being equal, first things in life are better remembered than are any subsequent experiences. The first spring from which we secured water when a small boy on the farm still contains the best water in the world, so far as memory is concerned. The law of recency is somewhat in contrast with this. Under it, other things being equal, our last experiences are best remembered. Concerning the law of frequency, it is contended that those types of behavior which have been repeated the greatest number of times will be best kept in mind. Undoubtedly this law has been recognized by teachers in all ages and it is easily possible to make use of it in connection with innumerable features of the learning process. Because it has a very definite connection with the so-called drill aspects of learning, it has been used to excess by many teachers. With respect to the law of vividness psychologists tell us, that experience which made the biggest impression upon us, other things being equal, will hold a large place in memory. The child under this law will remember throughout life a fourth of July celebration or an early hunting trip.*

Without attempting to give any detailed discussion of the laws as stated by Thorndike or Colvin, it is fundamentally important for the one who instructs children to

* Colvin, "Learning Process," pp. 145-158.

understand the profound importance of association as a factor in the learning process.

Some writers on pedagogy, especially the followers of Herbart, have made much of the term *apperception* in connection with the learning process. This does not, however, seem necessary. The statements already made are adequate without adopting additional terms. Pedagogically, we need to think of association as a process by which one experience or idea calls up another. A pupil will memorize a new poem by means of making suitable associations between the words of the poem and other words and ideas expressed by them. We learn to read by means of associating meaning with the letters and phonograms necessary for this purpose. Spelling is one of the best examples we have of fixing right associations for efficiency in this art. The student who undertakes to master a foreign vocabulary has to do it primarily by forming suitable associations between English words and their meaning as they correspond with the foreign words. Children learn colors more readily as they are associated with the colors of flowers and fruits.

We need to remember that there are two kinds of association, namely, conscious and unconscious. The drill work in numbers furnishes a good example of conscious association. Examples of unconscious association may be found in the various connections which children make between vacation and pleasurable experiences. It seems that we need to emphasize in all school practice much more than we have, the rewarding of good impulses. The schoolroom has been too much a place for punishing chil-

dren for the mistakes they have made. To be sure it is necessary to correct mistakes, but much more rapid progress will be made by controlling the exercises of the school so that they will result in the right associations with appropriate rewards.

The author recalls the great satisfaction, the feeling of triumph which came to a seventh grade class after working many days, when it dramatized successfully significant parts of the poem, "Evangeline." Here some children had an immediate and definite reward for memorizing correctly. Others made costumes, others provided for the stage and stage settings. Some learned the Latin for the mass, and others provided certain other significant factors necessary for the successful production of the play. One caution is in point at this place. The type of association which is characteristic of child life is that of association "by wholes," according to Norsworthy and Whitley.* Or to put it another way, children organize associations on the basis of some concrete experience and discrimination may be altogether wanting. That is to say, it is association in a gross form which later on may be made significant by means of rational processes. It would be appropriate to discuss in this connection the laws of habit formation. However, it would be better to leave this discussion to the end of this chapter and apply it to the other forms of learning.

Learning by Reflective Thinking, Reasoning, and Problem Solving.—Professor Dewey, in discussing reflective thinking in his epoch making book "How We Think,"

* "Psychology of Childhood," p. 179.

says: "Reflective thought is active, persistent, and careful consideration of any belief or supposed form of knowledge that supports it and the further conclusions to which it tends. In reflective thinking we are able to hold a suspended judgment until enough evidence is presented to warrant us in forming a conclusion." Here we may use again the principle of association. In reflective thinking or ideational processes we may set about purposely to gather sufficient evidence or data to solve a problem which has been proposed by the teacher or which we may have set for ourselves.

Pedagogically we need to remember that reflection or reasoning can be brought about only by the presentation of a problem to a child in such a way that the child can appreciate some value to be secured by the solution of the problem. Perhaps no one principle is violated more flagrantly than this one. Originally such matter in all of its forms was developed out of some race need and therefore based on a fundamental value. That value may be very remote at the present time. Consequently, innumerable problems of arithmetic, geography, and history have in them only secondary or historical values. It is therefore impossible, or nearly so, to get children to think them out. This is the explanation for the fact that a child may spend a very considerable portion of his time for eight years in the elementary school in solving problems in arithmetic and yet not be able to solve some very simple problem which involves direct thought processes.

The psychologists have marked out two different kinds

of thinking, induction and deduction. As a matter of fact, it is not possible in a class exercise in a presentation of a problem to keep these two types of mental activity sharply defined or separated. Moreover, it is not necessary to do so. In part, as a protest against the extreme formalism of the deductive type of presentation, the Herbartians and others invented the so-called formal steps for inductive teaching. They are five in number as follows: (1) Preparation, which includes some statement of a goal to be obtained with the recall of such new material as will furnish a setting for the new facts. (2) Presentation. In this step there is introduced such new material as will furnish a basis for the new generalization. (3) Comparison and abstraction. By these processes the student obtains from the data the basis for the statement which is characteristic of some general fact or specific law. (4) Generalization. This is only a clear statement or definition concerning the fact or law for which the foregoing steps have prepared the student. (5) Application. Actually the so-called application step is no real part of an inductive process, but purely a matter of deduction. In other words, it involves the application of the law or principle or definition to certain special cases which is the essence of deduction. A completely critical discussion of this would be out of place here.

The important thing to remember at all times is that children in the elementary school are inexperienced, that they are incapable of sustained ideational processes, and that, therefore, the major portion of the presentation

of such matter in all of its forms must be made in concrete fashion. The statements of principles or definitions, formulas or rules of conduct have little or no significance to small children. These facts account for the widespread interest in the newer forms of class exercise, as for example, the socialized class exercise, teaching by projects; the project-problem method and others which are protests against the dead, unpsychological methods of learning. On the other hand, they present opportunities for learning based on native interests and capacities to coöperate at associational and ideational levels where the values are concrete and the rewards are immediate.

There are at least two other important factors which should be taken into account when we consider the ways in which children learn. They are (1) habit formation and (2) individual differences. They are essential factors to be noted in connection with the major processes already presented. We do not class them as coördinate with the major learning processes but they need to be considered in connection with each one of them.

1. Habit Formation.—So far as the statement of a set of principles is concerned for correct habit formations, very little, if any, significant addition has been made to the knowledge contributed by James in his chapter on habit.* In this wonderful chapter, James lays down the three laws or maxims as follows: "The first law is that in the acquisition of a new habit or the leaving off of an old one, we must take care to launch ourselves with as strong and decided an initiative as possible." In the discussion

* "Psychology," Vol. I, ch. 4.

of this law, James points out the value of accumulating all possible circumstances and conditions to encourage the formation of a new habit. The second maxim is, "Never suffer an exception to occur till the new habit is securely rooted in your life." We have made large use of the phrase—"We learn to do by doing." It has been wisely observed that this does need amendment in that we need to learn *to do correctly.* Therefore, any system of practice which does not include great emphasis on the correctness of it may be more harmful than beneficial. A third maxim is, "Seize the very first possible opportunity to act on every resolution you make and on every emotional prompting you may experience in the direction of the habit you aspire to gain." In the statement of this maxim we have laid down the fundamental principle, that intentions, however good they may be, are not in themselves of any considerable value. As a final practical maxim James says, "Keep the faculty of effort alive in you by a little gratuitous exercise every day." In the statement of the last maxim, there is evidence of formalism and possibly asceticism, yet it is doubtful if we know of any better plan. If we were to state the foregoing discussion in very general terms we would say that when we desire to set up a new habit, the learner first must have a clear appreciation of the thing to be accomplished, then correct habits of accurate practice should be set up, remembering that speed which does not include accuracy is not worth anything. In the beginning, periods should be short with increasing length as development takes place and the important factor of continuity of practice should

always be taken into account. With young children any pleasure element which may be introduced, may contribute to the efficiency in the formation of correct habits and only immediate values can be readily appreciated fully by children in the elementary school.

2. Individual Differences.—One of the most significant features of the present scientific movement in education is the recognition of great differences among children. These differences involve the rate of growth physically, their mental development and their ability to respond to types of social conditions. Undoubtedly it is the business of the school to take into account every possible means of measuring these differences with respect to the child's capacity to learn the various types of material which are required in the elementary curriculum. In any physical examination of children, we discover very great differences in physical efficiency. In like manner when any one of the numerous mental tests is administered in a given grade, we find children varying greatly in capacity to do certain types of school exercises. It is not at all unusual to find variability of four or five years among children of a given grade when they are measured by some one of the standardized mental tests. We know full well too that the same great differences exist in social characteristics. Some children are quite dependable and responsive to social requirements, while others are unstable and uncertain in their responses. In the modern school, these significant and widely variable capabilities of children need to be measured as accurately as possible and taken into account in the learning process.

PROBLEMS

1. What do we mean when we say that a child is "motor minded"?
2. What are some of the fundamental motor coördinations which should be organized in the primary grades?
3. How important is play in the matter of making correct muscular coördinations?
4. What are the advantages of the project method of teaching for the various types of children?
5. What are the special advantages of the socialized class exercise?
6. What are the important elements to be considered in setting up a new habit?
7. How is it possible to reward good impulses; to encourage children to tell the truth?
8. What is the difference between work and play?
9. Is it always possible to introduce the play spirit into tasks which are thought to be drudgery?
10. What can be done to stabilize a child who is too easily influenced?

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CHAPTER IV

READING IN THE PRIMARY GRADES

WITHOUT any doubt it may be said that reading is the most important of all of the elementary school subjects. This is not only true because it is the key to all literature, but because it is impossible to make any considerable progress in most of the other subjects without a mastery of it.

History.—The reading of primitive man consisted in the interpretation of the gesture language of his family, tribe, or clan. Very soon the small child became expert in the use of this language. It was, of course, elaborated for the adults. It is still used among savage peoples.

Out of this language grew the picture language. Pictures were often made in the sand, on bark, stone, or wood. This had an advantage over the gesture language in that it placed the whole of an event in a view at one glance. Moreover, it provided a means of recording such facts or experiences as might have value for future use. By and by men began to realize that many of the words uttered were expressed by a few characters or sounds; therefore it was seen to be economical to select a number of signs or sounds which could be most universally used. The selection of the symbol or sound marked

the beginning of the alphabet which in the English language is made up of twenty-six characters which may be utilized to represent some forty sounds by which we are able to record hundreds of thousands of words. The development of the alphabet came slowly. Doubtless the Egyptians, the Babylonians, and the Phœnicians contributed to the evolution of the alphabet. But it remained for the Greeks to perfect it. With slight changes, the Greek alphabet is the basis for modern alphabets. The word "alphabet" is made up of the first two letters of the Greek alphabet, Alpha and Beta.

Reading is a branch of study, however, which was not very important until the renaissance and reformation movement. Indeed before the sixteenth century there were no reading text-books for children, and the real school books with attempts at gradation did not appear until the time of Comenius (1592-1671). Comenius attempted to write a series of text-books which might be used in elementary schools and secondary schools. The first book for beginners in reading was entitled "The Violet Bed of the Christian Youth." Students of education are familiar with the "Orbis Pictus," which was a text-book for reading in the vernacular school. This book treated of the "world in pictures." It introduced the word method. This method was afterwards advocated by Jacotot in France, and later by Worcester and Horace Mann in America. Comenius also advocated the analytic or sentence method, but it was not used in America until it was taken up by Farnham in New York about 1870.

The Reformation furnished the motive for developing the system of reading and reading material suitable to children. It became necessary for the common people to become familiar with the Bible in order to meet their religious obligations. Hence the early text-books were based on Biblical matter, or at least were quite religious in character.

Perhaps the first step in the evolution of the elementary text-book was the Criss-cross-row, which originated in England. It was only a large placard on which were placed the first nine letters of the alphabet, arranged in a criss-cross manner. These letters were learned in every possible direction. Unquestionably this must have been a very stupid process, unless the teacher could in some way inspire the game spirit in connection with it.

Another development in connection with the early history of reading was the Horn Book, which resembled a square, short-handled paddle on which was fastened a sheet of paper containing small and capital letters, Roman and Arabic numerals, and the Lord's Prayer. This sheet of paper was protected by a piece of transparent horn which was fastened along the edge by strips of brass.

Another step in the development was the A B C Catchechism which the pilgrims brought to America with them. All the material in the catechism was taken from the Bible. Out of it in time grew the famous New England Primer. This book is famous for the reason that its contents were much more comprehensive than previous books. It contained lists of vowels and consonants, words for spelling arranged according to the number of

syllables, moral injunctions, prayers, and illustrations of Bible scenes.

Following the New England Primer came the Webster Speller. This book was printed soon after the American Revolution and was a combination of the primer, the speller, and the reader. For fifty years it was more widely used than was any other book. It has been estimated that at least sixty million copies were sold up to 1895. Webster also published a reader which was called The American School Reader. It was intended to instruct children in geography, history and politics in the United States. The competitor of this book was an English book by Murray which contained selections from English poets, Bible stories, pathetic pieces to be spoken, and public speeches.

In the early part of the nineteenth century series of school readers began to appear. Usually there were two or three books in a series. Among the more important may be mentioned the Swinton series, published in 1820, the Purport series, which included selections from the writings of Jefferson, Patrick Henry, and others, published in 1823. In 1828 the Worcester series was published. It advocated the word method of teaching reading. The famous McGuffey six-book series was published in 1850. This was the first real graded series to be published in America. It may be counted the pioneer of its kind. It ran through many editions and thousands of copies were sold. Indeed its use continued down to the time of our fathers and mothers. The subject mat-

ter concerned almost all fields of human interests, morals, economics, politics, literature, history, science, and philosophy. Modern readers doubtless have this set for their immediate background and have been more or less influenced by it.

It is not possible to make an inclusive catalog of present day readers. Among others may be mentioned the Elson Revised Series, the Winston Series, the Jones Readers, the Merrill, and the Riverside Readers.

Objectives.—All writers on methodology and all modern courses of study attempt to state the objectives for reading. It seems that they have been summed up very well by Stone * in his new book as follows:

1. "To develop an ability to read the common types of reading matter silently, at a fair rate and with a reasonable quality of comprehension. Reading is primarily a thought process and from the very beginning it should be done for the purpose of getting meanings. The development of efficiency in reading involves the development of the ability to grasp meanings in increasingly larger units, the development of the ability to read with a feeling of meaning and an appreciation of values, and the development of discriminative reading.

2. "To develop an ability to convey meaning or feeling to another person through oral reading. This is done partly through the usual plan of oral reading in which all the pupils of the class have before them the material being read aloud consecutively, pupil by pupil. But this

* "Silent and Oral Reading," pp. 37-38.

aim cannot be adequately realized without a considerable amount of audience reading.

3. "To develop a taste for, and an interest in, the best types of reading material, and to develop a real appreciation of literature suitable to the age of the pupil the highest ideals and aspirations of the race are given best expression in the form of our classical literature. Pupils should gradually be led to an interest in the best in classical literature, as well as in the best of other types of literature.

4. "To provide an extensive vicarious reading experience for all pupils, with provision for individual differences in ability and tastes. This reading experience should be in the nature of excursions into various fields of interest, such as nature, history, biography, current events, vocations, sports, etc.

5. "To bring the pupils into contact, through reading, with the great ethical ideals of behavior, such as perseverance, patriotism, honesty, love, beauty, etc. This is not meant to involve the use of much didactic material. The growth of ideals comes through experience. Reading is an avenue through which the individual may experience the highest aspirations and the deepest struggles of the soul, in the past and in the present."

Another very interesting statement of the objectives to be obtained in the reading in the elementary schools is to be found in a new course of study for the schools of Rochester, New York. These objectives are stated in a recent issue of the *Elementary School Journal.**

* *Elementary School Journal*, Vol. 22, pp. 68-69.

1. Permanent interest in reading newspapers.
2. Habit of reading newspapers.
3. Permanent interest in reading magazines.
4. Permanent interest in reading books of travel.
5. Permanent interest in reading books of science.
6. Permanent interest in reading books of history and biography.
7. Permanent interest in reading books of poetry and fiction.
8. Desire to read these various things.
9. Ability to read effectively and economically as a necessary permanent study habit.
10. Ability to analyze the thought of books or articles read.
11. Ability to interpret and make application of things read.
12. Ability to judge the value of facts met with in the reading.
13. Ability to judge the validity of statements in the light of known evidence.
14. Ability to reproduce the thought of selections read.
15. Ability to understand problems presented in the reading.
16. Ability to follow written and printed directions.
17. Habit of reading with concentration.
18. Ability to use the library reference books and indexes economically and effectively.
19. Ability to use book helps, notes, index, glossary, chapter headings, etc., economically and efficiently.
20. Ability to read silently with proper speed and comprehension.
21. Fluency in oral reading.
22. Command over a good vocabulary.
23. Habit of using the dictionary.
24. Habit of handling books with care.

Both of these statements may be well summarized by saying that in reading the child is to master the art and the technique which is the key to unlock the door to the great and significant experiences of the race as they have been preserved by science, history, literature, philosophy, and religion.

Course of Study.—GRADE ONE. There are two general types of reading, oral and silent. In the primary grades both of these are usually accomplished in the reading period. While the primary grades mainly constitute the oral reading stage, silent reading should be introduced before the middle of the first year. As the vocabulary of the children increases, silent reading is useful in getting the meaning from the page and preparing it for reproduction. To what extent silent reading can be properly substituted for oral reading in the primary grades is a matter which has been the occasion of a good deal of debate. The majority of the investigators who have studied the problem scientifically regard oral reading as an important method of instruction for the primary grades. As we study the situation more and more, we are forced to the conclusion that even though children read accurately they may not understand the thought. They may comprehend less in oral reading, and we know that the rate is slower. Experimental evidence to establish the conclusion that silent reading is more effective than oral is, however, not now available.

No doubt many primary teachers have hesitated to undertake to teach silent reading in preference to oral reading, because they have had so little training in the methods by which silent reading should be taught. We have discovered also that children who do well in oral reading usually do well in silent reading.

It has been urged in favor of oral reading in the primary grades that young children are distinctively dramatic and live in a make-believe world, peopled largely by their

own imagination. An audience appeals to them; and when they have been well taught, they enjoy reading to visitors or being allowed to visit another schoolroom to read to the children in that room. Nothing is greater fun than playing a character in some appropriate selection. It becomes necessary about the beginning of the second semester to teach children the alphabet so that they may acquire the meanings which will enable them to recognize new words. Much phonetic drill should be taught in the first grade, possibly about ten minutes per day. Pupils should be taught something about syllables. In the first grade much interesting material needs to be provided in order that the work may be varied enough to keep up the interest of the children. Flash cards, word drills, games, memorizing poems, dramatizing, and conversation about things in which the child is interested—all must be utilized to keep up interest. As much variety as possible in the methods of conducting class exercises should be employed by the teacher.

The method by which children should be taught to read has not been determined scientifically. In practice good teachers use a combination of the sentence, word, and phonic methods. The first lessons should be made up of action words, sentences, and nursery rhymes. The names of the children may be written on the board and on cards in plain script. Pictures drawn on the board and used in connection with the words enable children to associate the new words with the pictures. This gives a vivid impression of the word and makes it more lasting than if it is presented in some abstract form.

We need to remember that children in the first grade represent a wide range of individual differences, and that each child must be appealed to in the manner most suited to his type. Some children learn most quickly by visualization, in which case seeing the words only on the board will be enough. Those of the motor type should be given the opportunity to learn through motor activity. Others learn more quickly by hearing. These should have an opportunity to learn words which have been pronounced for them. Each child should be studied critically at the beginning of the school year in order that suitable instruction may be provided for him. Among other things which should be known at the beginning of the year is the extent of the child's vocabulary. We know that children may vary in their speaking vocabulary from a few words to several hundred. It would doubtless be economical to provide for the mental testing of all children as they enter the first year of school. Not that we know anything final about intelligence, but that we should have additional data with which to start our instruction.

Games and Projects.—The projects which may be planned for the first grade are almost without limit. Learning the alphabet may be made a project through paper cutting. Children are directed to cut the letters, then associate them with printed forms and finally paste them in a book for an A B C book. In this exercise we have a direct appeal to motor activity, and important associations are set up.

The Landing of the Pilgrims may be made a project for

December work. This presents almost an infinite variety of problems.

The making and filling of a May basket is an interesting spring project.

There are numerous games which afford good opportunities for training in moral values and coöperation.

A very common game in connection with phonics is to provide cards on which there are written parts of words. Pin a part on each child or have each child hold a card, with partners standing together. Two of these partners give their names and name each couple who passes them. Then the last couple take their places. After this is done the boys may take one part of a word and the girls the other. Different children give the sounds and parts of words.

In the fall the boys are playing football, in the winter basketball and in the spring baseball. These games may be made the basis for much school work.

Another game for teaching new words may be called "Going to the Fox Hunt," or any other place where people may have tents and camp for a few days. Make a row of tents along the upper edge of the black-board, then a list of words leading to these tents. The list should be changed every few minutes to prevent the children's learning them by heart. Announce that any one who can give the words may go to the "Fox Hunt" and have a tent. When they have named the words, write their names on a tent. After all the tents are taken, ask each one to find his own name.

Measuring Results.—During the first year the class

should read six or eight primers and first readers. By the close of the year pupils should be able to read with a fair degree of speed, accuracy, and comprehension any first grade book. They should have the ability to recognize phonograms in common use, the words of the vocabulary singly or in sentences and to spell about one hundred twenty-five words of the phonetic families.

Grade Two.—At the beginning of the second year it is well to have the children review rapidly several first readers. When the second readers are begun, there should be periods for supervised study in which short interesting discussions of the subject of the selection should be had by the teacher and the pupils. The children should be led to describe the different characters and scenes which have been mentioned in the story.

It is well to see that both the meaning and the pronunciation of each new word is understood. Speed and thought-getting should be emphasized. Much sight reading should be undertaken by the children. The use of flash cards is a good device to increase the recognition of sight words. The vocabulary may also be increased by the use of phonics and word building.

A number of good readers, at least five or six, should be secured by the grade. It is a good plan to select at least one of these from the author of the principal text which was used in the preceding grade.

During the second semester considerable attention should be given to the developing of silent reading habits. And by this time it will be possible to determine whether a child has any peculiar reading disabilities, such as

poor eye movements or poor enunciation. Children should be allowed to read supplementary material silently with the definite purpose of reproduction with the class as an audience.

Projects.—A good project for the second grade is the farm. The children may cut paper animals to stock the farm, cut the members of the family from paper and provide clothing for each and make paper cuttings to illustrate the work which goes on in connection with the farm. The ball games mentioned and the fox hunt may be repeated in this grade.

Measuring Results.—By the close of the second year each child should have read at least two second readers, one supplementary reader and one book for pure pleasure. This is only a minimum requirement. A good teacher will be able to accomplish more than this.

Grade Three.—In order to develop good reading habits and abilities and provide for an enlarged education and experience, there should be a considerable amount of extensive reading completed during the third year. In this grade, comprehension must be emphasized. Many children who are able to read quite fluently, when they are asked to summarize what they have read, remember little or nothing. This fact indicates that it is altogether possible for phonetic drill and analysis, as well as articulation, to be mastered more rapidly than comprehension. When such conditions are observed, much attention must be given to reading instructions under good silent reading methods.

Some attention needs to be given to the slow reader in

order that he may have an opportunity to read by reading. It is well to select something for him to read with which the other members of the class are not familiar. It may be that the selection should not be as difficult as that which is necessary for the more fluent readers. It is a good plan to have the slow readers get additional reading practice in coöperation with and under the direction of the other members of the class who are better readers. Moreover, the teacher may give them an extra amount of time. The teacher may do this while the more fluent readers of the class are reading for pleasure. Sometimes additional help may be given before and after school, but in no case should this be put on a penalty basis. Rather it should be on an opportunity basis. It is not well to let the best readers become too severe in their criticism of the slower readers.

Games and Projects.—A good project has been outlined in detail for the third grade as "playing store." * It offers many opportunities for correlations with arithmetic, manual training, and home economics. The project may be made quite lengthy or, if time does not permit, it could be completed in a few periods. Since it is very suggestive, the project is quoted in detail:

"Playing Store"

a. Decide how the store shall be built.
   1. General plan, size, material needed, etc.
   2. Outside finish.
   3. Inside finish.
   4. The show windows.

* "Twentieth Year Book, National Society for the Study of Education," Part I, p. 31.

b. Installing the departments.
   1. Dry goods department.
      a. Have the children bring the material for the stock.
      b. Choose different children to act as managers.
      c. Choose an advertising manager and proceed to advertise the store.
   2. Toy department.
      a. Children can make cardboard toys for this department.
   3. The ready-made clothing department.
      a. Children can make paper clothes.
   4. Millinery department.
      a. May make doll hats.
   5. Shoe department.
      a. May make crocheted or cloth shoes.
   6. Notion department.
      a. Notions may be made from tin, cardboard, etc.
   7. Carpet and rug department.
      a. Weaving may be introduced here.
   8. Cafeteria.
   9. China department.
   10. Books and stationery department.
   11. The picture department.
   12. The grocery department.

Measuring Results.—Children in the third grade should be able to read quite intelligently from third readers and easy supplementary books from the same grade, whether they have read them before or not. In general they should have mastered the technique in such a way as to be able to read simple books or papers without the assistance of parents or teachers. They should have completed at least one basic third reader during the year and two or more supplementary texts, including some book for pleasure readings. They should know the simple

rules of phonics and how to apply them. Beginning with this grade the Monroe silent reading test, revised, should be applied grade by grade throughout the remainder of the grades. Children should be able to meet the standards of this test in speed and comprehension.

Grade Four.—The reading in the fourth grade should be so motivated that the children will continue to be so interested that they will enjoy reading more than ever before. The following points should be emphasized in this grade; the development of thinking power, the formation of good habits of study, a cultivation of worthy social motives; the appreciation of good literature; the ability to read silently in such effective fashion as to be able to secure the main thought at a single reading; considerable ability to read fluently in oral reading in such a manner as to make the class enjoy what is being read. Much emphasis should be placed on silent reading in this grade, and such selections should be provided for them as will contribute to this end. Careful attention should be given to the development of good habits of silent reading according to the laws of modern psychology.

The mastery of the processes of oral reading have practically been completed in the third grade. Therefore, the silent reading should be given the major attention for the remainder of the elementary grades.*

Projects.—The project work of the fourth grade should be a continuation of that outlined for the third grade. A most excellent project is outlined by Krackowizer: †

* "Eighteenth Year Book, National Society for the Study of Education," Part II, Section 1.
† "Projects in the Primary Grades," p. 96.

"The organization of the grade itself as a city"

a. Naming the city.
b. The city departments.
    1. The police department.
    2. The health department.
    3. Department of public buildings and parks.
    4. The street department.
    5. The fire department.
c. Establishing relations with the preceding grade.
d. The city calendar.
e. The public library.
f. Social life in the city.

If time permits, this project may be carried further and include the following:

"The building of the play city"

1. Grading.
2. River and canal building.
3. Road or street making.
4. Bridge building.
5. Publicity work.
6. Park making.
7. House building.

This could be used as a closing inter-grade pageant, including the work done in both the third and fourth grade projects.

Measuring Results.—The children in the fourth grade should have completed at least one fourth reader and three or four supplementary readers, with at least one book for pleasure reading. They should have made marked improvement in the matter of comprehension and in silent reading habits. They should be measured by

the Monroe Test for silent reading. Gray's Oral Reading Test is valuable for measuring the progress in oral reading.

PROBLEMS

1. Why is oral reading more necessary in the lower grades than in the upper?
2. What can be done to realize a maximum development for the supernormal child in reading? The normal child? The subnormal child?
3. How may the necessary time be found to give individual instruction to those children who require it?
4. What are the disabilities of children who are unable to reproduce what they have read?
5. What can be done to help the child who cannot enunciate clearly? The one who stutters?
6. What are the methods of diagnosis which may be employed with children who seem unable to learn to read?
7. What consideration may be given the little foreigner who enters school and is retarded because of his inability to understand or speak English?

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CHAPTER V

READING IN THE INTERMEDIATE AND UPPER GRADES

BEGINNING with the fifth grade, literature, one of the fine arts, should receive the major emphasis. In a large measure the reading work for intermediate and upper grades should be based on literature.

Material.—It is a common practice to require a standard reader in the fifth and sixth grades. It is less common to require one for the seventh and eighth grades. Moreover, in well organized schools and junior high schools there is seldom a basal text in reading. The classics, newspapers, magazines, books on travel, and so on, are used as the basis for reading lessons. Obviously oral reading receives much less attention, so that by the end of the grammar grades more than half of the reading is silent reading.

Aside from the texts the following may be a tentative list for the various grades:

Fifth Grade Reading Appreciation

1. Favorite Greek Myths . . . . . Hyde
2. Robin Hood . . . . . Pyle
3. Peter Pan . . . . . Barrie

4. Black Beauty . . . . . Sewell
5. Wild Animals I Have Known . . . . . Seton
6. Uncle Remus . . . . . Harris
7. Little Lord Fauntleroy . . . . . Burnett
8. Rebecca of Sunny Brook Farm . . . . . Wiggin

Memory Work

1. Landing of the Pilgrims . . . . . Hemans
2. Paul Revere's Ride . . . . . Longfellow
3. Robert O'Lincoln . . . . . Bryant
4. In School Days . . . . . Whittier
5. Fable . . . . . Emerson
6. The Day is Done . . . . . Longfellow
7. Planting of the Apple Tree . . . . . Bryant

Sixth Grade Reading Appreciation

1. King of the Golden River . . . . . Ruskin
2. The Bluebird . . . . . Maeterlinck
3. Little Men . . . . . Alcott
4. Little Women . . . . . Alcott
5. Squirrels and Other Animals . . . . . Burroughs
6. King Arthur and His Knights . . . . . Radford
7. Hans Brinker . . . . . Dodge
8. Strange Stories of Colonial Days . . . . . Harpers

Memory Work and Appreciation

1. Abou Ben Adhem . . . . . Hunt
2. Daffodils . . . . . Wordsworth
3. Psalm of Life . . . . . Longfellow
4. American Flag . . . . . Drake
5. Love of Country . . . . . Scott
6. First Snowfall . . . . . Lowell

Seventh Grade Reading Appreciation

1. Evangeline . . . . . Longfellow
2. Snow Bound . . . . . Whittier
3. Treasure Island . . . . . Stevenson
4. Man Without a Country . . . . . Hale
5. Tales from Shakespeare . . . . . Lamb
6. Christmas Carol . . . . . Dickens
7. Birds and Bees . . . . . Irving
8. Great Stone Face . . . . . Hawthorne
9. Sharp Eyes . . . . . Burroughs
10. Miles Standish . . . . . Longfellow

Memory Work and Appreciation

1. To a Waterfowl . . . . . Bryant
2. Columbus . . . . . Miller
3. Sir Galahad . . . . . Tennyson
4. Building of the Ship . . . . . Longfellow
5. Old Glory . . . . . Riley
6. Daybreak . . . . . Longfellow
7. Horatius at the Bridge . . . . . Macaulay

Eighth Grade Reading and Appreciation

1. Ivanhoe . . . . . Scott
2. Merchant of Venice . . . . . Shakespeare
3. Silas Marner . . . . . Eliot
4. Legend of Sleepy Hollow . . . . . Irving
5. Rip Van Winkle . . . . . Irving
6. Vision of Sir Launfal . . . . . Lowell
7. David Copperfield . . . . . Dickens
8. Story of My Life . . . . . Helen Keller
9. Huckleberry Finn or Tom Sawyer . . . . Mark Twain
10. The Gold Bug . . . . . Poe
11. The Last of the Mohicans . . . . . Cooper

Memory Work and Appreciation

1. Thanatopsis . . . . . Bryant
2. The Last Leaf . . . . . Holmes
3. Recessional . . . . . Kipling
4. For A' That and A' That . . . . . Burns
5. Elegy . . . . . Gray
6. Portia's Mercy Speech . . . . . Shakespeare
7. Opportunity . . . . . Sill
8. A Day in June . . . . . Lowell
9. Gettysburg Dedication Speech . . . . . Lincoln
10. The Heritage . . . . . Lowell

The author is well aware that the list selected above is not based on any scientific foundation. In fact, there is no consensus of opinion even for such a list. In connection with the composition and grammar work there is another list of reading material suggested, based on the children's choices. This list has been compiled with some discrimination from the courses outlined by Stone in "Silent and Oral Reading," Kendall and Mirick, "How to Teach the Fundamental Subjects," Briggs and Coffman, "Reading in Public Schools," The Baltimore Course of Study and a list of selections in the *Elementary School Journal,* Vol. 21.

The Audience Situation in Oral Reading.—Stone * devotes a whole chapter to the problem of audience reading. Of course this has to do with the oral reading for all grades, but it applies particularly to the upper grades. The old-fashioned reading lesson in which one child read one sentence or paragraph and another one the next

* "Silent and Oral Reading," Ch. VI.

sentence or paragraph, and so on, is as dead as an Egyptian mummy. It ignores everything we have learned in modern psychology. It is practically impossible to make it appeal to any of the fundamental instincts of children. Reading is a form of expression and therefore requires an audience. The audience may be one person, the remaining members of the class or even a larger group including other members of the school. In any event in order to secure a real situation, the pupil should have something to tell the audience, preferably something which the audience does not already know. And then he should be required to "get it across" in good form. This sort of exercise can be made to appeal to the fundamental instincts of children.

A second type of audience reading is called by Stone "group to group" audience reading. In this form of reading each class is given a different set of books containing suitable stories. The "Fifty Famous Stories" furnishes elaborate material for such work. In the class exercise the procedure is to have one group read to the second group. The second group does not know the story to be read; therefore, it constitutes a genuine audience. The pupils of the first class may each have a copy of the selection, but the main thing is the actual reading of it by one member of the group. In this way the audience group may learn the story in a real reading situation. Opportunity should be offered for discussion including both groups. The second group then presents a story to the first one.

Another type of audience reading comes under the

head of dramatic reading in which a class selects some story in dramatic form, then chooses the characters for the main parts of the story. These characters present the drama to the class or to some other audience. If time is afforded for more than one drama, the children who were the audience in the first case may become the readers in the second. It is very easy to memorize the parts and make a real play out of it.

Another form is the so-called "cut-up-story" in which the teacher or the pupils select a good printed story. The story is then cut up into as many parts as there are pupils in the class. Each one has been given one of the parts. If the work has been selected by the teacher, it is a case of sight reading; or if necessary, the pupils may have some time to prepare the sections which have been given to them. This is a real audience situation, because each child is anxious to get the complete story.

PROJECTS

GRADE FIVE.—*Reading Period as a Contest*

1. Division of class into rival groups.
2. Material prepared by each group and presented to the other group.
3. Standards for judgment worked out by class.
4. Score cards kept and scores tabulated at close of each class period.
5. Results obtained by children.
   a. Coöperation.
   b. Self-direction.
   c. Judgment of their own work.

GRADE SIX.—*Dramatization of Bird's Christmas Carol*

1. Play to be written and staged by children.
2. Plan of Procedure.
    a. Story assigned for reading.
    b. Plans for writing.
        1. Decide upon scenes and characters, assignment of parts to each group for writing.
        2. Corrections made in language class.
3. Choice of children for characters.
    a. Memorizing of parts.
4. Plans for costumes.
5. Arrangement of scenery.
6. Presentation.

GRADE SEVEN.—*Organization of a Reading Club*

1. Purpose—To fix habit in the selection of and reading of good literature.
2. Meetings held twice each month in charge of officers. In this way children learn parliamentary rules and make and carry out their own programs.
3. Credit may be given for having read a certain number of books and making a report on each.

GRADE EIGHT.—*Conducting a Library*

1. Library Organization.
    a. Librarian.
    b. Assistant.
    c. Secretary.
    d. Treasurer.
2. Committees chosen.
    a. Provide place for books.
    b. Secure rules and cards for use of books from public library.

3. Results to be obtained.
   a. Children keep records of all books read.
   b. Children record an opinion of all books read.
   c. Records of progress made.
   d. Records of measures of speed and accuracy.

Measuring Results.—It is very difficult to measure with any considerable accuracy the results of reading in the upper grades because there are no standards with which to measure accurately the appreciation of the fine spiritual values which are expressed in the masterpieces which we have called to the attention of the children.

The work should be taught in such a way that pupils should be able to approximate the standard scores in the Monroe Silent Reading Test, grade by grade.

PROBLEMS

1. In large classes where it is not possible for all of the pupils to read during each class exercise, what plan may be employed to get a response from each child?
2. What can be done to help children without voices?
3. How may the fundamental instincts of adolescent children be employed to motivate the reading in the upper grades?
4. Suggest good plans for developing speed and comprehension in upper grade reading.
5. How shall we judge a literary production in choosing it for reading material in the upper grades?
6. Formulate some phrase flashing exercises suitable for grammar grades.
7. Is it possible to modify the usual type of class room examination to conform in some measure to standardized tests? How?
8. What parts of the reading program in the upper grades should be devoted to poetry?

9. How many eye pauses should a sixth grade pupil make in a line? Seventh grade? Eighth grade?

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CHAPTER VI

SPELLING

History.—The English language has been developed through many centuries. It has included elements from the Angles, Saxons, Danes, Northmen, Normans, French, Celts, and Latins. It is needless to observe that these elements have not been added in any regular or scientific form. One of the results of this increase in the language by means of accretions has been to accumulate more sounds than it has symbols. Moreover, to add to the complexity there are a number of instances in which two or more symbols represent the same sound. And again compound letters may represent a single sound. Then again we take into account that through the years many words have been undergoing changes in spelling by dropping letters or syllables. The problem of spelling is further complicated by the fact that the English language is continually borrowing words from foreign languages. While the pronunciation of a borrowed word may be materially modified, the spelling is rarely changed. Some further confusion has been occasioned by the fact that at various times certain agencies have attempted to reform the spelling of certain words. Sometimes it would appear that the new spelling is more complex than the

old. In 1898 the National Education Association accepted the report of the committee recommending the immediate adoption of twelve simplifications as follows: tho, altho, thoro, thoroly, thorofare, thru, thruout, catalog, prolog, decalog, demagog, and pedagog. Another effort toward a reform in spelling was made by the Simplified Spelling Board in 1906. The National Education Association has accepted the recommendations of the board. A large number of weekly and monthly journals have also accepted the list. Some of the shorter forms are now appearing in some of the large dailies and are being taught in many schools and colleges.

In the first half of the nineteenth century, spelling was generally taught before reading. This method continued to be the rule until well into the last quarter of that century. The plan was to teach the alphabet first. Then the spelling of some easy phonograms came, usually arranged in columns. In this way little by little a vocabulary was built up out of which the reading was developed. As soon as spelling books were made, the subject of spelling became practically independent of other subjects, and, because of its definiteness, it assumed a place of much importance in elementary school work. Millions of copies of the old "Blue Back Spelling Book" were sold.

Near the beginning of the twentieth century, due to some investigations, the old-fashioned spelling book came to be the center of violent discussion. Some educators advocated its complete abolition, along with the abandonment of the separate period for the teaching of

spelling. They insisted that spelling should not be taught separately from the other subjects of the school curriculum. These radical proposals were not widely adopted, but the discussion resulting from their advocacy reduced materially the importance of oral spelling and magnified the value of spelling in written composition.

The teaching of spelling has been considerably influenced by certain investigations. The first investigator was Dr. J. M. Rice. His experiment was undertaken in 1894. He came to some very startling conclusions, among the more important of which was the suggestion that the school had nothing to do with the child's spelling ability. He might learn as well in a poor school as in a good school. He also found that children from good homes or neighborhoods do no better on the average than children from poor homes, and that foreign-born children spell as well as native born. He also indicated that the time element of study had nothing to do with the results and concluded that ability to spell was largely a matter of development, coupled with the personality of the teacher.

Of course we know now that many of these conclusions were erroneous. Nevertheless the investigation served to attract attention to the problem.

Somewhat later Superintendent O. P. Cornman, of Philadelphia, conducted an investigation in the Philadelphia public schools. His problem was to discover whether incidental spelling was as effective as the drill method. He came to the conclusion that a considerable amount of time spent in teaching drill spelling is a waste of time, because the spelling of the children taught

by the incidental method seemed to be about as good as that of those who had spent a large amount of time in drill. We know, of course, that these findings are not accurate. The investigation tended, however, to discount long periods of drill given to oral spelling.

In 1910 Dr. J. E. W. Wallen made a critical study of the drill method in three schools in Cleveland, Ohio. This experiment was conducted with much more care than the two previously mentioned. Therefore, the results may be considered to be much more accurate. His conclusion is that the drill method of teaching spelling brings better results than the incidental method.

Another subject of investigation has been the question of whether words in groups may be taught efficiently or whether they are learned better dissociated. The evidence is not altogether conclusive, but it tends to show that nothing is to be gained by teaching homonyms, synonyms, and antonyms. The author conducted an elaborate experiment in the Chicago public schools some years ago, and the evidence was of such a nature as to indicate the inadvisability of teaching groups of words including homonyms, synonyms, and antonyms. Practically all experimental evidence at the present time would indicate that the highest efficiency in spelling may be obtained by teaching words directly where they have meaning.

Objectives.—1. The first great objective in teaching spelling should be to give the child the use of one of the most essential tools of learning. A mastery of written spelling is one of the absolute foundations of an education.

The person whose spelling is inaccurate has a serious handicap in all lines of study.

2. There has been considerable discussion about the relative importance of oral and written spelling. Whatever may have been the value of oral spelling in times passed, it is obvious at the present time that we need to know how to spell when we write; and we are not at all sure that habits of oral spelling function at a high rate of efficiency in setting up these habits.

3. The spelling lesson should be selected in such a way as to provide for the learning of those words which the child needs to spell rather than long lists of words for which he has no immediate use.

4. The spelling of words should be, for the sake of economy, completely automatized.

5. It is important for children to know when they do not know how to spell a word. The habit of consulting the dictionary should be set up.

Principles of Methods of Teaching Spelling.—A recent study of Professor Ernest Horn presents the more important principles which have been evolved from the study of the experimental evidence in connection with the teaching of spelling.*

1. Not to depend solely upon the incidental teaching of spelling. In the history of the teaching of spelling in the paragraphs above, we have called attention to the evidence which warrants this principle.

2. Rules cannot replace direct instruction in spelling

* "Principles of Method in Teaching Spelling as Derived from Scientific Investigation," "Eighteenth Year Book, National Society for the Study of Education," Ch. 3.

even in the case of words covered by them. The assumption that children can learn to spell by a rule is based on antiquated psychology which is not now used in connection with any up-to-date teaching. Spelling is a habit, not a theory.

3. The first stage in economy of time in learning to spell is to see that the pupil learns those words which he needs to spell and no others. In a former paragraph in which we stated the objectives of spelling we have the embodiment of this rule. There have been several investigations to determine exactly the spelling vocabulary for each grade. There have been six important investigations concerning the number of words commonly used by children and adults in written composition.

The Jones list includes 4532 words. The Smith list includes 1123 words. The Cook-O'Shea list includes 3200 words. Chancellor's list includes 1000 of the commonest words. Another list of 3470 words was compiled from many sources by Burke, Studely, Allison and Wear. There is a list of 1000 words prepared by Ayres who combined the results of four concrete investigations. This minimum word list includes 1254 words common to four or more of the six investigations mentioned. The Ayres Spelling Scale includes 1000 words. The Buckingham extension of the Ayres Scale includes 1506 words.

All of the above lists were selected in some measure for the purpose of securing such words as the child really needs to use directly in his vocabulary. In some measure, they represent a scientific selection. It may be observed also that scientific method is being applied to the selection

of suitable subject matter which shall make up the course of study for the elementary school. Considerable effort has been put forth in this direction concerning the subject matter in arithmetic, language and reading.

4. Those words which are commonly used by the children in any given grade should be placed in that grade.

5. Those words which are most commonly used in correspondence should be taught earliest, on the ground that the school must insure the correct spelling of such words before pupils leave school.

6. While the number of words to be taught in a single lesson depends on the method to be employed, and upon the length of the recitation, the tendency in recent years has been to decrease the number. Professor Horn recommends that as many as twenty-five to fifty words according to grade may be given at one time in a test, then have each pupil learn the words he has missed rather than take a definite number of words each day. If spelling is done daily, the periods should not be more than fifteen minutes in length.

7. Test all words before teaching. The reason for this is obvious, though the practice is quite the contrary. There can be no justification whatever for requiring children to spend time on words they already know. Consequently the first problem is to eliminate those words which are already mastered.

8. Each child should give especial attention to those words which are repeatedly missed by him. One device for this is to have a hospital list, or a black list, or, as Jones calls them, "demons" on which enough drill ac-

cording to the rules of habit formation shall be placed to insure their mastery. Teachers must expect considerable variation in the spelling ability of the pupils in a given class. Spelling ability is like all other abilities with groups of children. No amount of drill or any other method will reduce the class to one-hundred per cent. efficiency. One of the immoral things about the old spelling grind was the expectancy that all children in a given grade should spell all of the words correctly.

9. Insist on careful spelling in all written work and religiously correct all spelling errors. It is exceedingly important to observe this rule, because it is the written vocabulary which we are endeavoring to master.

10. The emphasis in presenting the word should be upon visual imagery. This principle is obvious because of what has been said about written spelling.

11. The correct pronunciation of a word is a very important factor in learning to spell. The word should be presented without diacritical marks. This principle has been the center of heated discussions based altogether on opinion. At least there is no experimental evidence to show that the use of diacritical marks increases the efficiency of the speller.

12. Writing a word is an aid to learning to spell it. Some have urged that writing a word in the air is an aid to learning to spell it. There is, however, no conclusive evidence to prove it. Undoubtedly it is much better actually to write the word. The reason is that this offers another form of stimulus. It adds another type of sense perception.

13. The amount of repetition necessary for fixing a word varies greatly with individuals. This principle needs to be kept in mind by teachers for the reason that it is very easy to expect all children to come up to the same standard of efficiency with the same amount of effort or time. We need to remember how great may be the individual differences in any grade.

14. Proper testing is an important factor in improving spelling. One of the marked advantages in any one of the three or four standardized tests in spelling is that there is an objective measurement for the progress of the child. Moreover, this method of measurement enables the pupil to see clearly exactly what his progress is.

Course of Study.—Grade One.—The child's first spelling should be the translation of his own speech into sight symbols so that another may read his thoughts. It is not advisable to bring in words until the necessity for their use is brought directly into the child's experiences. As soon as a word becomes necessary to a child, he has his motive for learning it. Spelling in the first and second grades should be conducted without a text-book.

In the first grade the reading and spelling for the first half of the year can hardly be differentiated. The work will consist in becoming acquainted with words as words and in becoming familiar with them in their relations to other words. Lastly the phonics or symbols representing the particular sounds are taught. Only long and short sounds of the vowels should be taught during the first year. All the words copied from the blackboard or

script card should be used in sentences such as the child can construct.

The spelling should be very carefully watched, as any careless arrangement of letters and other incorrect forms in spelling tend to become habits. Sometimes when the beginner has occasion to write the connective *and*, he does not distinguish it from the article *an*; an incorrect habit is thus formed. Again the child readily learns the preposition *to*, but when he needs to use the numeral *two* he must be taught that it has a different spelling. The same is true likewise of the adverb *too*. According to rule these words should not be taught together. So many of the words of the child's vocabulary can be sounded phonetically that with proper drill he may be able to spell a large number of words without further help. Pictures and other objects may be used as devices in helping children to learn to spell. For example, take the picture of an apple, a leaf, a house, or other familiar things and write in the words which the children call to mind by the laws of association.

Projects.—The game of climbing the ladder will interest pupils. On a page in his spelling book let each child make a drawing of a ladder with ten rungs. As each child masters the spelling of a new word he is permitted to write it upon the rung of his ladder. The game is to see who will be first to reach the top.

Another good project is have each child make a seasonal booklet. The booklet should contain drawings of leaves and trees of the neighborhood. And these leaves may be appropriately labeled as follows: "This is

an oak leaf." "This is a maple leaf." One of the peculiar values of this project is that it affords drill by repetition of a few needed words. It also provides drill on the correct use of *a* and *an*.

Measuring the Results.—By the end of the first year the child should know how to spell the greater number of words he needs in the simple sentences he is learning to write. He should know by this time all the letters of the alphabet and the sounds. Some common phonograms containing the most frequently used vowel sounds should be known. In the Speyer course of study it is recommended that from fifty to seventy-five of the most common words in the primer and first reader vocabulary should be selected and taught.*

Grade Two.—In grade two the children should continue the study of spelling with their reading and language work. The vowels should be taught here, and the child should learn that there must be a vowel in each word or syllable of a word. Some attention is also called to silent letters, such as final "e" and to the fact that some letters stand for more than one sound. Moreover, combination consonant sounds such as "sh," "th," may come in. Additional phonograms should be brought in, and some drill in phonics should be given. Families of words may be studied, such as the *at, old, fa,* and *so,* families. The children enjoy building such lists.

Games and Projects.—A good practice for a new list as well as a review of words, is to have the list on the board and after the children have been drilled on both the

* *The Speyer School Curriculum,* 1916, p. 21.

written and oral spelling of them, call on the child to hide or to rise and turn his back to the board. The teacher or some pupil pronounces one of the words for him to spell. If he misses, another child is called upon but is given a different word since the attention of all the others has been focused on that one word. This plan tends to magnify the visual impression.

Another device is that connected with dissected words. Each child is supplied with a box of letters. A leader names the letters in a word but not in the proper order. The pupils are required to find the letters as he names them, and then the one who can first arrange the letters into words has the privilege of giving out the next word. The game may be played with phonograms as well.

The game of "Guess What" calls for clear visualization, attention, and repetition. The words of the lesson, both advanced and review, are written on the board. They may be *barn, wages, horses, ladder, farmer, feed.* A leader rises and says, "Mary, I am thinking of a word." Mary rises and says, "Is it h-o-r-s-e-s, horses?" The leader replies, "It is not h-o-r-s-e-s." Another guess is made in the same way, and so the game goes on until the right word is guessed. The one guessing the right word becomes the next leader. It is best for the leader to tell the teacher what word he chose, as the fun of the game sometimes tempts him to change his mind as to what word he chose.

The story of Cinderella and her fairy godmother with her magic wand which changed objects can be applied here as a fascinating game for the child in fixing the long

vowel sounds and the final silent "e." Call this the "fairy e," and show how the fairy changes words by putting this "e" at the end; the *can* becomes a *cane,* and the boy's *cap* becomes a girl's *cape* at the touch of the magic wand which places the silent "fairy e" at the end. Emphasize the fact that the "fairy e" says nothing but makes the vowel in front of it tell its name.

One way in which to teach long vowels where two vowels stand together is to introduce the personal quality by having the children take hold of hands. The first one is long and does all the talking, while the second is silent, as in *aid, oak, eat, rain, tea.* Of course the children will need to learn that there are some exceptions to these principles, and diphthongs such as "oy" in *boy* and "ow" in *cow* may be taught.

Measuring Results.—By the end of the second year children should have added about three hundred words to their spelling vocabulary and should be able to learn new words in which there are no complicated phonetic relations.

Grade Three.—Phonic drills, syllabications, accents and correct pronunciations should be stressed in this grade. For the first time a pupil may have a text. However, there is much discussion about the advisability of using a text at this time. A wide-awake, well-trained teacher can probably do better without one. About fifteen minutes per day in class exercise and study is necessary to secure good results. Some of the consonants having two sounds may be taught here, and we begin the

study of irregularly formed plurals. Dictation exercises should be used more now and the children encouraged to form sentences using the new words. Much written work observing the laws of habit formation is needed to fix the correct forms. At this time pupils should begin to learn that vowels have other sounds than long and short, and some of the more common additional sounds should be taught.

Games and Projects.—One plan involving the game element is to give rewards in the form of stars for perfect lessons. A white star may be put by a child's name for a perfect individual lesson, and a gold star may be given the group or line which has the most nearly perfect individual lessons. The contest may continue for a week and then the group should be rearranged.

In this grade may be introduced the hospital list, or black list, or "demons." Each pupil may have a note book or a space on the board for his list. A game in opposites or like meaning words may be introduced in the third grade. A word is given by one group, and the other group must suggest a word similar in meaning or opposite in meaning, depending on the form designated at the beginning of the game. Possibly this is training in language rather than in spelling, because it is doubtful if this will add materially to the efficiency in learning to spell.

Measuring Results.—Roughly, three hundred and fifty to four hundred words may be added to the spelling vocabulary of the child during the third grade. There is

reasonable expectation for all the children of the third grade to be able to spell correctly all the words in columns A, B, C, D, and E of the Ayres Scale.

Grade Four.—In grade four it is almost a universal practice for the pupils to have a spelling book. Some new problems may be introduced in this grade. The children should be taught to use the dictionary in such a way that they will find pleasure in using it. They need to be told how to open it, how to turn the leaves, how to use the key words and how to find words quickly. It will pay to use at the beginning of the year some problems into which the game element is introduced. Written spelling should be stressed in this grade. A good plan for study is as follows: the teacher should write the new words of the lesson on the board, and as she writes each one she pronounces it clearly and uses it in an easy sentence. If the word contains more than one syllable, it may be written again in syllables and the accented syllable marked. The children then write the word in sentences. All experimental evidence tends to show that words written in sentences are learned more quickly and accurately than in any other way.

Good drill comes from the teacher's pronouncing each new word, then spelling it. And as she spells, the pupils write, spelling silently as they write it. The reason for this method is obvious. For at one and the same time impressions come through visualization, hearing, vocal-motor and hand-motor processes. Again the experimental evidence is quite conclusive that the greater the number of impressions that can be made at the same time,

the greater the spelling efficiency. It will be observed in the direction given above that four of the sense expressions are being utilized at the same moment. Frequent drills under the laws of habit formation should be given during the term. It is well to bring up the complete list week by week, and month by month.

The drill in phonics should be continued, and all the vowel and consonant equivalents should be presented during the year.

Games and Projects.—The individual list mentioned in grade three should be continued in grade four. The game of checkers is a good one for the children. To play the game the children are lined up in one row. The teacher gives the child two words. All who spell their two words correctly move one place to the next station. All who do not spell their words correctly must wait one more turn before they are permitted to move. There are four stations in the game from the time the child starts till he gets back home to his own desk. That is, each child must spell at least eight words. The poor speller spells more; the more words he misses the more turns he has. This is one of the great advantages of this game, for practice is given the child who needs it.

Another good game for this grade is called "fishing." Into a box, the pond, are put the words to be spelled. Each child takes his turn to fish for a word. He catches one and hands it to the teacher. She pronounces it to him. If he writes it correctly it becomes his fish; if not, it is the teacher's fish. It is saved, and he is taught the word. The game is to see who can get the greatest num-

ber of fish. The game might very well be played leaving out the teacher and allowing the children to do all of the fishing. These games are suggested by Prior and Pittman.*

Measuring Results.—The child's spelling vocabulary should contain about 1200 words at the end of the fourth year. He should be able to use the dictionary efficiently and he should be able to spell all the words on the Ayres Spelling Scale in columns A to G inclusive.

Grade Five.—In grade five the drills on phonics, syllabication, accents and the use of the dictionary should be continued as we have already indicated in grade four. A critical analysis should be made of cases of bad spelling to determine whether it is the result of poor observation, defective memory, or poor functioning of the associational processes. Sometimes an investigation will disclose that poor spelling results from physical defects, especially defective vision.

The chief factors in eliminating bad spelling are a correct diagnosis of the disability and an application of such of the laws of learning and habit formation as will correct the defects. It is well to remember that the more sense perception stimulus which may be presented the greater the efficiency in spelling.

Games and Projects.—It is well to have inter-class and inter-school contests of various types.

A novel game suggested for groups during the winter time is that of "Snowball." A picture of a snowball, pushed by a child is drawn on the board. The words of

* "A Guide to the Teaching of Spelling," pp. 119-122.

the spelling lesson or the review lesson may be written on a piece of paper. They are divided among the groups of children. When they are all spelled, then they should be pinned upon the snowball. This is called rolling the ball. When all the words are on it, then begin to unroll it by taking the words off and spelling them as they come off. When they are all off, the ball is melted.*

Written matches may be employed profitably. These can be arranged by rows in the schoolroom or by teams. The children may be sent to the board, or they may spell at their seats. In case they are sent to the board, the words can be seen more readily, the errors quickly noted and individual weaknesses found so that the words which should be made the subject of drill for each child can be readily seen. The team which misspells the fewer words is the winner of the match.

Measuring Results.—Pupils should show increased facility in the use of phonics and in the handling of the dictionary at the end of this year. About three hundred words should be added to the spelling vocabulary. The children should spell readily all the words from A to H on the Ayres Scale.

Grades Six, Seven, and Eight.—The work of the three upper grades is built upon the foundation which has already been laid in the preceding grades. Conscious and constant attention should be given to word forms in relationship to usage, to helps to enlarge the vocabulary, and to training in correct expression. The use of the dictionary should be completely mastered during these grades so

* *Ibid.*, p. 121.

that the child can readily understand preferred pronunciations and interpret diacritical marks through the use of key words at the bottom of the page. He should be able to make use of the abbreviations for the different parts of speech. During these grades some attention should be given to prefixes and suffixes. Such prefixes as *ad, ante, anti, bi, dia, in, inter, per, post, pre,* and *pro* should be learned. Among the more important suffixes which should be learned may be mentioned *able, ace, ance, age, ant, ate, ee, eer, ent, fy, ion, mont,* and *ous.* A limited number of rules may be learned during these grades. However, we are not quite sure from the experimental evidence that the learning of the rules will have much to do with increasing the efficiency of spelling. Every possible effort should be made during this period to help children develop a spelling consciousness so that they will know when they have the correct spelling of a word. As was suggested for the fifth grade, every effort should be made to discover the types of errors which a pupil makes constantly; then he should receive such special attention as will eliminate or minimize the disability.

Games and Projects.—Pupils of these three upper grades should continue the keeping of the individual spelling lists. Spelling matches of various types are good to arouse group spirit and are good devices for drill. Prior and Pittman mention four types of matches, the common match, catch match, the score match, and the written row match.*

* *Ibid.*, pp. 121-146.

Two new games may be employed in these grades. "Seeing the World" is a game very much enjoyed by children, because it has a large element of excitement in it. A number of ticket agents are appointed to represent the different cities which the class decides to visit. Each agent is supplied with a number of words which must be spelled by each child before he can board the train or boat to leave that particular city. This is a good game for a monthly review. According to Prior and Pittman,* for the seventh and eighth grades, the game of baseball is perhaps the best of all. The class is divided into two teams as in ordinary baseball. The captains of the teams choose batters, the teacher acts as scorer and umpire. The names are written down in the order chosen. Nine vertical columns are placed beside the names of each team. These represent innings. The teacher "pitches" words to the batter. If he hits three times, he goes to first base and another batter takes his place. Each time a man goes around the bases, he makes a score for the team. If he misses a word given and the catcher spells it, he is out. When three men are out, the other side takes the bat.

Measuring Results.—Children who complete the eighth grade should be able to make nearly a perfect score in spelling the 1000 words of the Ayres Scale. Likewise they should be able to make almost a perfect score on the Jones "demons." (Appendix A.) A good minimal spelling list is found in Appendix B. Tidyman also presents a minimum word list of 1254 words based on the experi-

* *Ibid.*, pp. 121-126.

mental evidence of the various spelling investigations. (Appendix C.)

PROBLEMS

1. Tell how to develop a spelling consciousness.
2. What is the best method of teaching diacritical marks?
3. Describe all the possible ways of helping a poor speller.
4. Hunt up a list of not fewer than five words with which to use the prefixes and suffixes noted in the text.
5. Describe the most common spelling disabilities and give methods for the treatment of each.

REFERENCES

Ayres: *A Measuring Scale for Ability in Spelling.*
Arnold: *A Mastery of Words, Course of Study.*
Prior and Pittman: *A Guide to the Teaching of Spelling.*
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Tidyman: *Teaching of Spelling.*

CHAPTER VII

WRITING

History.—Since the dawn of history we find that men have used some form of writing for purposes of communication and the recording of their deeds. Picture writing was the earliest form to be used by all primitive people. Every student of history is familiar with this form of record. A very good example is the case of the American Indian who sent messages by using pieces of bark on which rude pictures were carved. Each picture was the symbol of an idea. An arrow symbolized an enemy, and a triangle, a tent. Moreover, these rude books or tablets were carefully preserved in many ways by primitive man. Sometimes these stories were recorded on the utensils about the house or even woven into the decorations of the dwelling. In some instances the blankets and clothing were utilized in this picture writing.

The development of writing may be divided roughly into three stages, namely, the mnemonic stage, sometimes called the pictograph form, the ideograph stage, and the period of phonograms. In the mnemonic stage some object is used directly as a message, or a complete picture of an object is used to convey the knowledge. In the ideograph stage the picture symbol, usually in a complete

picture, was used to suggest the abstract idea. In the third stage, phonograms may be said to be the graphic symbols of sounds. It is readily observed that this represents the extreme form of abstraction. This is the stage in which we find all modern languages.

Gradually two or three pictures were combined into symbols. This sort of picture writing reached its highest state of development among the Egyptians, who made elaborate use of engraved hieroglyphics on their monuments. From a combination of pictures into symbols, writing passed into the stage in which the symbols represent sounds; and a combination of these symbols form words. All the symbols used to represent the sounds of the language constitute the alphabet. The Phœnecians were the first to make very much use of a phonetic alphabet. The Babylonians and other nations of the East used the wedgelike writing. The forms of the letters of our present alphabet, except j, u, w, y, and z, reached their full development about two thousand years ago and have been preserved on the Roman inscriptions of that period. The separate alphabets for capitals and small letters were not developed until the latter part of the eighth century.

Alcuin of York developed the lower case letters from which our present day script is a lineal descendant. Writing has been among the last of the so-called formal subjects to be influenced by the newer educational thought. To be sure there has been controversy concerning such matters as the value of vertical or slant writing and such problems as the size of letters. The position

of the body and movements in the formation of letters have been subjects for discussion in recent pedagogy. Much less attention, however, has been given to the solution of the problem of writing than to such other subjects as reading and spelling. Recently, however, educational psychology and experimental pedagogy have turned their attention to some of the more important problems in connection with writing. Unfortunately a large amount of attention has been directed to writing on a commercial basis rather than on any scientific or professional basis. School officers have been besieged with new schemes, plans, devices and methods of teaching penmanship which have been put together in some so-called "new system" of writing. In general these new systems have only an empirical basis for their organization. Recently some scientific study has been given to the problem, and we now have the beginnings of a basis for the teaching of hand-writing according to modern psychology. These studies have been made chiefly by Judd, Thorndike, Ayres, Freeman, and Gray.

Objectives.—The objectives to be obtained in writing are legibility, speed, and ease of movement. Legibility depends upon correct spacing, right formation of letters and uniformity of slant. Beauty is a factor also. Children should learn that the arrangement of writing on a page has something to do with its appearance. In this connection it will be observed that paragraphing is a factor in the appearance of any written material. Likewise it improves the appearance of writing to leave a margin at the top, sides, and bottom of the page. Attention

should be called also to the spacing between letters, words, and lines.

Writing Movements.—It is readily observed that learning to write makes heavy demands on the motor capacities of children. One of the major factors in learning to write is the organization and control of bodily activities. Every one who has observed a small child when he first attempts to write has noticed how diffuse his movements are. Literally he writes all over, using the muscles of his face, arms, and legs. It is not unusual to see the youngster using his tongue in various ways. All this means that the problem of organization and coordination is the fundamental one in the initial stage of writing. Generally children who are inclined to be of motor types make more rapid progress in learning to write. It should be noted in this connection that imitation is a very important element in the child's activities. There has been much difference of opinion concerning the right kind of muscular organization for beginners. Some have contended that writing should be done only with the muscles of the arm, that the fingers should not help in the forming of the letters. Others have insisted on finger movements of various kinds. Judd found, by the use of his hand tracer, that nearly every one uses both the arm and fingers in writing. Harry Houston says,* "The importance of arm movement has been exaggerated and emphasized to the exclusion of other factors so that a large amount of poor scrawly writing has resulted. Legibility and ease of writing should be the ob-

* *Elementary School Journal,* June, 1922.

jectives. Position, pen holding, and movements should be regarded as means of attaining these aims. Not many pupils after leaving school have conditions favorable for complete arm writing. The writing that was formerly done on large desks is now largely done by machines. The majority of people write on pads or notebooks held in the hand or lap, or in ways unfavorable for arm movement as we have been teaching it. The consensus of opinion now favors a combination of arm and finger movements.

Problems Relating to the Position of the Body, Arm, Hand, and Paper.—Some scientific evidence has been collected bearing directly on the principles of method in teaching hand-writing. This evidence is of a statistical and experimental nature. It is possible that not all of it is entirely conclusive, and yet it is of vital importance to all those who propose to teach hand-writing. This is the procedure by which the problem may be solved, rather than by inventing "new systems" of writing for commercial purposes. Professor Frank N. Freeman, of the University of Chicago, has performed an important service to the teachers of writing by stating the principles which have resulted from the various scientific studies in hand-writing. They are as follows: *

Principle 1. The writer should face the desk squarely. There is a good deal of evidence to show that the side position was required by nearly all of the old systems of writing. This might cause curvature of the spine as well

* "Eighteenth Year Book, National Society for the Study of Education," Part II, pp. 11-25.

as eye strain, because the side position is unnatural both for the spine and for the vision. There is some evidence to indicate that curvature of the spine might be produced when only one elbow rests on the desk, leaving the other one free.

Principle 2. Both forearms should rest on the desk or approximately three-quarters of their length.

Principle 3. The paper should be directly in front of the writer. There is considerable evidence to indicate that it is bad for the eyes to look sidewise at the paper. We know very well that all of our reading is done with the book, paper, or drawing directly in front of the face.

Principle 4. The paper should be tilted to the left (or to the right in the case of the left-handed writer) until the lower edge makes an angle of about thirty degrees with the edge of the desk. And the writing should slope to the right from the vertical by the same amount (to the left in the case of the left-handed writer). This principle has been the occasion of much controversy which could not be reviewed in this connection. However, it appears that the experimental evidence is in favor of the above principle.

Principle 5. The forearm should form a right angle with the base line of the letter.

Principle 6. The hand should be placed with the palm down so that the wrist does not slope more than forty-five degrees from the horizontal.

Principle 7. The hand should rest on the third or fourth fingers, not on the side.

Principle 8. The forefinger should rest on the penholder below the thumb (nearer the penpoint than is the thumb).

Principle 9. The penholder should be grasped loosely.

Principles 5 to 9 inclusive are based primarily on experimental evidence in a recent study of Professor Freeman.*

In summarizing these principles it may be said that health demands good posture, a position that will not cause eye strain or curvature of the spine, and the body should not be allowed to get into any unnatural positions. It should be the business of the teacher to observe children during this period with considerable care in order to avoid unhygienic conditions. Good workmanship is found where the atmosphere of the schoolroom encourages cheerfulness and earnest endeavor. Undoubtedly one of the aims in teaching writing should be to have the child respect his work and take pride in its appearance. Confidence and enthusiasm are essential attitudes in mastering writing. The fundamental rules of habit formation should be observed in the teaching of writing as in other subjects. The first thing is a good start. The pupil should have a definite idea of the movement to be employed and a picture of the letters or words to be made. A careful analysis of the letter forms should be made. The teacher may write the copy on the board, showing how this is done. Sometimes it is well to have the pupils make the forms in the air before trying

* "The Hand-writing Movement. A Study in Modern Elements in Penmanship Excellence."

to write them. Each pupil may have a copy on his desk. However, authorities generally agree that it is not wise to put the copy in the hands of first grade pupils at the beginning. Some authorities say that they should not be given until the second grade. It goes without saying that the teacher's writing on the board should be neat and carefully done.

The Course of Study.—First Grade.—In this grade it is advisable to have pupils do practically all of the writing on the blackboard. The first step in the work with beginners is to teach them to follow directions and to gain free use of the arm. This may be accomplished most easily by the use of the blackboard. Some of the more important directions are as follows:

1. Divide the board into spaces using lines which have the slant you wish to have the pupils acquire.

2. Place in each space an ellipse, the long diameter measuring three or four inches.

3. Require the pupils to stand about one foot from the blackboard facing it squarely.

4. Let them begin at the top of the ellipse and trace it to the teacher's count, "one, two, three, four," using the true movement, that is the direction in which the oval is made. Very soon the children should learn to keep their own count.

5. The push and pull exercise may be used in the same manner.

6. If the pupils have become fairly proficient in the exercises, let them trace and then write such words as

on, one, none, being sure that they begin at the right place and move in the right direction.

During these exercises it is important that the teacher observe carefully the children as they attempt to write to see that the principles which were stated in the preceding paragraphs are not being violated. The very common practice of setting a copy on the board and allowing the children to proceed in their own way will not yield very good results for first-graders. They need to be watched closely and directions need to be given at the proper time to see that bad habits are not started. The writing of the beginner should have two characteristics, namely, it should be very large and should be done mainly with the arm as a whole rather than with the fingers. We know that small children are less capable of precise movements than the adult; attention has already been called to the diffuse movements of children. Therefore, it is not to be expected that there will be great precision in the form of the child's early writing. The copy should be good, though not necessarily a perfect copy, because the child will imitate the teacher's writing.

Second Grade.—At the beginning of the second grade the size of the writing may be reduced considerably. As soon as paper is used it should be ruled in three-eighths inch spaces instead of five-eighths inches. But the child should still make minimum letters one space high and tall letters and capital letters two spaces high. More work should be done on paper and less on the blackboard. To get more exact form, it is well to begin teaching small

letters by counting. There are many ways to count for different letters, but in this grade the directions should be given as definitely as possible so that the children may know exactly what is to be done. For illustration, in teaching the small letter "i" the count may be, "up curve, down straight, up curve, dot." To make the exercise of any value the class must keep with the count. Undoubtedly rhythm helps children to learn in these earlier stages. By the end of the second grade, correct habit formations with respect to position will be established.

Third Grade.—Pen and ink should be introduced at this time. The size of the small letters should be one-third of a space and the larger letters, almost a space. The teacher should see that the pupils' writing is not too small, too slow, or too heavy. Some attention should be given to arm movement when the transfer is made from the board to paper and when spacing is reduced. In this grade the small letters should all be reviewed carefully by the count and the capital letters introduced. It is in this grade that drill processes are first introduced and later developed throughout the grades. Generally children are expected to have automatized the holding of the pen by the completion of the third grade. By the end of the year's work the pupil should have acquired fairly good form for capital letters and a fair control and freedom in all his writing. Moreover, he should be able to make discrimination concerning the quality of his writing at this time. Therefore he should be introduced to the standardized tests for measuring hand-writing. It is a good plan to have these standardized tests at some con-

venient place in the schoolroom so that they may be readily accessible to children who want to measure the progress of their own work. Beginning here, too, it is well to let the pupil plan some sort of scheme to measure directly his progress in writing, both in the matter of speed and quality. The first three grades should furnish the ideal for good writing. The intermediate grades should fix, as far as possible, these ideals into habits.

Fourth Grade.—In the fourth grade we begin intensive drills. These drills should be continued through the fifth and sixth grades for the purpose of fixing right habits. The speed should increase considerably in this grade. When counting is used, the speed should be three counts per second, or fifteen counts in five seconds. By this time the child should be coming into possession of a considerably higher degree of motor control. Moreover, he may become interested in perfecting his control through drill. There is no way to prevent the drill from being mechanical; but if the child can be made to measure his progress, he will be interested in the drill. By the end of this grade the pupil should have acquired a speed of forty-seven and a quality of thirty-seven, measured by the Ayres Hand-writing Scale. It is well to remember, however, that we may expect individual differences in writing, and some of the children of the grade may not be up to the standard indicated by the scale.

Fifth Grade.—The application of movement writing to all school work should receive special attention in this grade. Of course it is desirable to give some attention to

writing in all school subjects before this time. However, it is not altogether practicable to do this, because before this time the child has not been well enough organized in his physical development to secure the necessary control. The same exercises which we have used in other grades may be reviewed for this grade. In order to secure the best results it is well to give a warming up exercise before writing. This is a principle which we use in other forms of activity.

Sixth, Seventh, and Eighth Grades.—The work in these grades is primarily for the purpose of securing final automatization of such habits as are desirable for good writing. There should be a thorough review of all capitals and small letters to get exact forms. Some drill should be made on the Arabic notation in order that good form may be secured. Too slow a speed spoils freedom and ease of movement, and too high a speed spoils form.

There should be great stress put upon the things emphasized during the previous years, the position of the body, the correct position of the paper, proper pen holding, and proper arm movements. One of the tasks in the grammar grades, then, is to prevent the pupil from falling into bad habits and gradually to increase his writing efficiency. Writing habits should be as completely automatic as possible in order that the child's attention may be free for the thoughts which are being expressed. In the upper grades there is some temptation to experiment with the style of writing. This does not mean that there should be no improvement, but does mean that there

should not be any radical shifting of the style. Such shifting may be brought about by trying to imitate the style of a new teacher or some new fashion which springs up spontaneously among the pupils in a school. One style of writing should be used for writing lessons and for all other school work.

Measuring Results.—The first measure of efficiency in writing is speed. Sometimes speed is developed at the expense of quality and sometimes quality at the expense of speed. However, one cannot assume that low speed is always accompanied by good quality or that high speed always implies low quality. Thorndike says, "The greater the speed the better the quality." It would seem from all the evidence now available that with proper direction children improve with some degree of regularity in both speed and quality. Another character which is most obviously related to excellence in writing is uniformity. The slant and alignment of the letters have bearing on the uniformity. The two space letters are used in judging uniformity of slant and the one space letters in judging uniformity of alignment. Letter formation is a matter to which the child's attention may be directed in the methods of teaching. No letter should vary from its conventional form in such a way that it is likely to be confused with any other letter. By the end of the eighth year the pupil should have acquired good movement, good control, proper letter formation, and a good rate of speed. The quality of writing, according to the Ayres Scale, should be fifty-three, and the speed sixty-five at the end of the sixth year; at the end of the seventh year, a qual-

ity of fifty-eight and a speed of seventy-five; the eighth, a quality of sixty-five and a speed of eighty-three.

Standardized Tests.—There are three standardized tests which should be called to the attention of the reader —first, the Thorndike Scale; second, the Ayres Scale, General Scale with three forms, and the Gettysburg Edition with one form; and third, the Gray Scale. This latter is used primarily for diagnostic purposes.

Projects. Grades One to Three.

1. Form a committee to decide on the best writing.

2. Copy a sentence announcing a little show the group is giving.

3. Copy an invitation to take home to mother inviting her to a Parent-Teacher meeting.

4. Write an informal note to another room inviting them to come to see a story dramatized.

Grades Four to Eight.

1. Write letters to exchange with another school in another state, describing their own city.

2. Write letters to the board of education, telling them what is needed to equip the playground.

3. Write news items to be published in the school paper or a local paper.

4. Write an application for a certificate in penmanship.

PROBLEMS

1. What are the most important things in which to drill the child during the first four grades?
2. Should a pupil ever be excused from writing exercises after reaching a certain standard?

3. What natural instincts may be used as normal incentives to secure good writing?
4. Has the speed of writing anything to do with the quality?
5. Find suitable exercises to develop the arm movement. In what grade do we first emphasize it?
6. What are the advantages of using a handwriting scale over the old way of grading?
7. Which is the best, individual instruction or class instruction?

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CHAPTER VIII

LANGUAGE AND COMPOSITION—GRADES ONE TO FIVE

History.—Ever since there appeared two or more individuals in the world, there has been the necessity for some form of language with which to communicate their ideas. As we have already indicated in the chapter on reading, perhaps the first communication was by means of gestures. Some have argued that gesture language is the most natural and universal of all. With gestures, the movement of the vocal cords was primarily an accessory and not the main medium of thought. Yet the gesture language had its limitations in that communications could not be preserved, and it could not be used in the dark. It was totally inadequate for the expression of abstract ideas.

It has been asserted that articulate speech is the paramount form of language, and students of language have insisted that the evolution of the human race may be traced very well by the development of language, assuming that thought and language have developed side by side. The great general law of language development is that we proceed from the concrete to the abstract.

In the savage stage, oral composition was the only form employed. As man evolved from savagery into

barbarism, forms of writing developed as we have indicated in the chapter on writing.

First we had the pictographs as employed by the Egyptians and some other oriental peoples. Later the cuniform writing and the idiographs, and finally the phonogram and alphabet were evolved.

The main forms of composition were used in simple forms by the Egyptians, Babylonians, Chinese, and others. However, it remained for the Greek civilization to develop the finer styles of oral and written composition.

In consequence we have an elaborate literature in poetry, drama, oratory, science, history, and philosophy as a rich heritage from the Greeks.

True, the early literature of both the Greeks and Romans such as the "Iliad" and "Æneid" were first composed in oral form. However, before the Golden Age in each of these countries, these great epics had been reduced to writing. With the aid of Greek teachers the Romans contributed much to poetry and oratory. The middle ages contributed little or nothing to literature. Immediately following the Renaissance, the vernaculars of the various countries began to take form; during the time of and following the Reformation vernacular schools were established all over Europe. In Italy, Germany, France and England, there developed a considerable literature in the vernacular. However, the great contributions to modern literature have been made since the beginning of the seventeenth century.

In America Noah Webster described the school he attended in Connecticut as teaching: "A little writing,

ciphering, spelling, psalter, testament and Bible." Language and composition as a subject had no place in the Colonial curriculum of the grammar schools. By 1860 grammar and declamation, with emphasis on grammar, had been added to the elementary curriculum. By 1875 declamation and grammar were given places of equal importance, and elementary language was introduced into the curriculum. In 1885 grammar with oral language with new methods of teaching were introduced. These new methods of teaching were the outgrowth of the great Pestalozzian movement, which was influencing the methods of teaching in all the subjects of the elementary curriculum. Oral language teaching which had been so rare now became common. It was necessary in connection with the object teaching introduced by the Pestalozzian movement.

During the next ten or fifteen years, oral language work and composition came in as a new subject for instruction in the primary grades, and in such a degree that oral and written language work together tended to replace the exercises in informal English grammar which hitherto had held complete sway in the grades of the elementary school. From the oral language work at once came the teaching of correct speech usage, and the fundamental rules of language and grammar were in large measure eliminated, or at least dropped into the background.

There yet remains much discussion about the relative importance of oral and written composition in the elementary schools. Also much debate still is waged around the question of how much formal grammar should be

required before the high school. Up to the present time there have been no scientific investigations which may be cited to help us conclude the debate.

Objectives.—There is really only one formal objective for the teaching of language and composition in the grades or elsewhere namely, to secure the ability to communicate ideas through words with accuracy and effectiveness, whether the transmission is made orally or through some form of written composition.

Grade One.—When the first grader comes to school, he is already equipped with a considerable vocabulary and a manner of expressing ideas gained through the imitation of his elders in the home. His speaking vocabulary may consist of only a few words, or it may run into the hundreds and sometimes into the thousands. Fortunate is the teacher if this vocabulary has been put together in good form according to the standards of oral composition. If such has not been the case, the first obvious task of the teacher is to begin the elimination of bad forms and to replace them with correct forms of expression, making use of the laws of habit formation. This is easier said than accomplished, especially if the home and the street contribute continually to the preservation of the bad habits. Nevertheless it is the imperative duty of the teacher so to conduct the work of language that the knowledge of the children shall be organized and expressed in good form.

Habits of talking clearly, distinctly, and correctly need to be cultivated with great persistence. The more formal expressions in stories, songs, rhymes, and dramatization

are all excellent motor work in training children in the correct use of the mother tongue. Children should be encouraged to give free and spontaneous expression in conversation about home and school activities including games and nature. All of this knowledge should be utilized as the basis for correct language, and of course all the school subjects should be taught in such a way that the children will form correct associations of ideas and express their thoughts in good form.

The primary teacher should be a finished story teller and should know the fundamental instincts and interests of small children. In this period almost all children have pets of some kind. They should be allowed to tell about their pets and how to care for them.

The collective instinct is also marked in children in this period of the primary grades. Any one who has ever investigated the contents of the small boy's pocket knows how many different articles, useless and otherwise, it may contain. Some foolish teachers do not know how to make use of this important instinct. The boy's collections should be the basis for many oral compositions. The collective instinct may be utilized to get pictures from newspapers and magazines; many flowers, toys, and playthings may be collected. All of this may be made the basis for the oral composition. At all times attention should be given to the laws of habit formation.

Story telling in the language period can easily be correlated with the school subjects. A good first grade story is "The Old Woman and the Pig." The repetition in the story appeals to the children at this age. After the story

has been told by the teacher, the children may make pictures to illustrate the striking parts of it, either by paper cutting or by making crayon sketches. Paper cutting probably should come first since it involves more motor activity and deals with complete units in mass. Group work may be done by allowing the children to cut several objects and group them to form one complete picture. Before the close of the year, each child should be able to make a picture from his own cuttings.

A number of good pictures may be used for language study in this grade, such as: "Saved," by Landseer; "The First Step," and "Feeding the Birds," by Millet; "The Cat Family," by Adam, and "Children of the Shell," by Murillo. Since children learn readily by the association of ideas and the imagination is vivid at this period, pictures afford splendid material for training in both. There are many stories which are suitable for dramatization and which provide for motor activity, imitation, and association of ideas. Moreover, such stories afford opportunity to express individual differences which are to be found in all groups of children. Such stories as "The Gingerbread Boy," "Cinderella," "Chicken Little," "Raggylug," and "How the Elephant Got His Trunk" afford a wide range for language expressions. In all of this work in dramatization there should be a very conscious effort made to enable the child to secure a real command of himself as well as a command of words. The dramatization also helps to fix the habit of making complete statements. Moreover, it makes provision for the two different types of children: Those that are garrulous

and need to be restrained and those who do not talk enough, for each child has his own story to tell in the dramatization.

Memory work which takes into account the tendency to imitate and gives also some room for association of ideas may be taken from any of the following: Of the Mother Goose Rhymes—"Little Jack Horner," "Little Boy Blue," "Jack and Jill"; Stevenson, "The Wind" and "The Train"; Rossetti, "Who Has Seen the Wind"; Watts' "The Busy Bee"; and Kingsley, "The Lost Doll."

Games and Projects.—Language games may be employed to correct errors of speech. It is possible by means of these games to utilize the laws of learning. For illustration: One child is asked to think of a word that rimes with "cat." He says, "I am thinking of a word that rimes with cat," and then calls on some one to guess the word. "Is it rat?" replies the one called on. "No, it is not rat," replies the leader. He continues in this manner until some one guesses the right word which may have been "fat," "sat," or some other. The child who guesses the word becomes the next leader.

For projects in grade one, any one of several excursions may be made as follows: to the post office, candy factory, greenhouse, cafeteria, canning factory, or blacksmith shop. After making a trip to any one of these places the children should be able to tell with a fair degree of accuracy the things they have seen and the arrangement of them. In case a cafeteria is visited, prices of the food may be used in the number work, for they could find the cost of several dishes necessary for a lunch.

The author has seen very small children playing cafeteria.

Measuring Results.—It will be observed that almost all the first grade work has been that of oral composition. However, the first grade child should learn to write his own name and address and the name of his school. Children should have acquired the habit of placing a capital letter at the beginning of "post card construction" sentences, also to begin the names of persons with capital letters and to write the personal pronoun "I" with a capital letter. They should also know when to use a period or question mark at the end of sentences.

Grade Two.—In a general way the work in grade two should not differ materially from that as outlined for grade one. The same aims and problems continue for second grade children. Care should be taken to correct all the common errors in speech, such as double negatives, or the wrong use of verbs and pronouns. An attempt should be made to eliminate some of the "and's," "then's" and "so's." Pupils should be able to use correctly capitalization in connection with the days of the week, months, holidays, and the beginning of each line of poetry. They should also be able to use the period with such abbreviations as Mr., Mrs., and Dr. Oral composition is, however, still to receive the greatest stress in the second grade. Children in the rural schools have opportunity to accumulate considerable information about birds, trees, flowers, weeds, and fruit. All this information may be made the basis for object lessons. Here again, the collective instinct may be utilized and the

children should be required to make good stories based on their observations.

There are a great many stories that may be told to children, to be made the basis for oral composition. Leiper suggests * the following list of stories: "The Two Frogs," "The Grasshopper and the Ant," "The Daisy," "The Fir Tree," "The Fox," "The Ugly Duckling," "The Queen Bee," "The Six Swans," "Daniel in the Lion's Den," "Hiawatha," "Robin Hood," "Bruce and the Spider," and "The Blind Men and the Elephant."

We have already said that a primary teacher should be a good story teller. In presenting stories it should be kept in mind by the teacher, according to Bryant,† that the first purpose in telling the story is to afford pleasure to the child. A second purpose is to stir the child's imagination and enrich his spiritual experience and stimulate healthy reaction upon it. It is better for the teacher to tell the story than to read it.

There are many stories which may be profitably dramatized in the second grade. They should, of course, be simple. Fables, legends, and folk stories are particularly adapted to this grade. "The Shepherd Boy" is a good type. It also furnishes many problems for motor activity which may be correlated with drawing and manual training. After the story has been dramatized, the children could cut pictures of the boy, the wolf, the sheep, and the wise old man. They could then make the village in their sand table and locate the boy and his sheep.

* "Language Work in Elementary Schools," p. 60.
† "How to Tell Stories," p. 4.

Bryant advocates the continuation of picture studies as the basis for language work in this grade.* In general for purposes of correlation, the same pictures may be used here as were suggested for art appreciation in the chapter on Drawing, namely: "Madonna," Correggio; "Children of the Shell," Murillo; "Mother and Child," Brush; "Ring a Round a Rosey," Jesse Wilcox Smith; "A Child's World Series," Jesse Wilcox Smith; "Helping Hand," Renouf; "Angel with Musical Instruments," Da Forli; "The Cat's Dancing Party," Jan Steen; "The Belated Kid," Hunt; "Milking Time," Dagnon Bouveret; and "The Torn Hat," Sully.

For correction of errors in speech, games and drills are effective. Of course these drills should be based on the laws of habit formation. The following game gives them drill. The pupils are all seated as usual. One has a bean bag. The teacher calls "Sadie." The pupil tosses the bag to Sadie saying, "I threw it to Sadie." Teacher: "Tony." Sadie: "I threw it to Tony." This is continued until the bag has gone around the room.

Another good game is: Teacher: "Mary and Mae walk across the room. Mary, tell us what you and Mae did." Mary: "Me and Mae walked across the room." "Mae: "I and Mary walked across the room." Teacher: "The polite way is to say Mary first." Mae: "Mary and I walked across the room." Mary: "Mae and I walked across the room."

In written composition the children should be encouraged to express their own thoughts in response to some

* *Ibid.*, p. 51.

need, the record of which then seems to them to have some value. A letter to a classmate, an answer to an invitation, a record of some study or event or a booklet of stories for his own personal use or to give to some one else will bring much better results than any formal scheme for written composition, for we have here a genuine motive for records that make them seem worth while to the child. Written compositions may be secured by a class contribution in oral form. The best oral form may be written on the blackboard by the teacher, that it may be rewritten and revised with suggestions from the class. If it presents subject matter worth while for all of the children or some good reason can be given for doing so, it should be copied by all the children in the class.

Capital letters, paragraphs, and punctuation necessary for good expression may be discussed and put into the composition. The dictation of short paragraphs involving the use of periods, capital letters, and question marks will be found to be of practical value.

In a previous chapter on Spelling, attention was called to the fact that it is well to keep a spelling list of words difficult to master.

Projects.—The hospital list for spelling may constitute a project for this grade. Let the children prepare a program for Thanksgiving or Washington's birthday. Either one of these will offer numerous opportunities to work up the story, allowing for individual differences among the children. Each child could copy an invitation to his parents or some friend to attend the program. The reading lesson could also be correlated with this project,

and there are certain correlations which could be made with nature problems which will be of more interest than before. Study the pumpkin, the turkey, corn and fruits. Suitable songs could be taught in the music period.

Measuring Results.—Results may be measured by noting the increase in facility in oral composition, due to an enlarged vocabulary and right habit formations. The children should be able to speak and write four or five logically related statements on one subject, using capitals and punctuation marks correctly.

Grade Three.—There are some special problems which should be taken up in the third grade. First, children may be taught mainly through imitation the use of the exclamatory and the interrogative sentence as a means of expression. In connection with these sentences the children should be required to use a natural speaking tone that may be heard by every one in the room. Second, the use of the apostrophe in possessives and contractions may be taught in this grade. Third, the paragraph in written composition should be made the unit of expression.

Methods.—The larger emphasis is still on oral composition rather than on written. However, we should observe that there is a great increasing need for some permanent records. The class story and coöperative work should be continued and the individual written work should receive such careful oral preparation that there will be no excuse for technical errors. Writing habits can be fixed only by writing under the laws of habit formation. Self criticism and class criticism in this as well

as in other subjects should be developed in the beginning of the third grade in order that the children may become familiar with correct forms of speech. As far as possible the written work should come from a desire to express one's self. The work should be written and corrected by the class and then by the teacher. After this it should be copied by the child, care being given to penmanship, spelling, and punctuation.

Some suggested types for oral composition are: the experiences of children at home; a holiday event; problems in nature study about trees, butterflies, caterpillars, and cocoons. Correct manners for various occasions; speaking to an audience; and some common courtesies children should know are also good.

The collective instinct is still prominent at this period and the pupils may make collections of leaves and learn to discuss freely and accurately the different kinds. Motor activity may be employed by mounting the leaves or by making a book in which to keep the leaves. Then the names of each should be written on the sheet with a brief description of each kind. This may readily be turned into an individual or group project. If the book is to be made for the library, this would be an added motive for the work.

Some suitable stories for dramatization are: "The Boy and the Wolf," "Beauty and the Beast," "Grace Darling," "The Golden Touch," "Seven Little Sisters," and "Why the Sea is Salt."

The imagination is still vivid at this period and may be directed and controlled by requiring the children to

make appropriate endings to an unfinished story, to tell original stories and to read stories in pictures. Imitation and reflective thinking may be stimulated by practice in vivid recall and mental imaging of events and characters about whom a story has been told. Children should be able to converse freely about them, using the language of the characters represented. Some children still enjoy fairy tales during the third grade, and their vivid imaginations readily form ideas for stories. These stories may be read into pictures.

Picture study should be continued as in the preceding grades. The following list of good pictures may be studied: "Holy Night," Correggio; "Angel with Litezz," Carpaccio; "Ilpenstein Baby," Frans Hals; "Children of Charles I," Van Dyck; "Pilgrims Going to Church," Boughton; "Knitting Lesson," Millet; "Shoeing the Bay Mare," Landseer; "Sheepfold," Jacques; "The Return to the Barnyard," Troyon; "Midday Rest," Rhine Prints.

No reference should be made to the technical aspects of language, or terms of grammar during this grade. However, it is important through dictation and the imitation of correct models to set up as many correct habits as possible, and all forms of oral and written composition should be finally completed in good form.

All topics for composition should come within the range of the child's experiences. For example: how to make a snow man; to describe the meadow lark; to describe a bird's nest; or to tell what a sky scraper looks like.

It is needless to remark that the language work in all

of its forms should carry over into all the school subjects in order that correct habits of speech and writing may be set up.

Projects.—Already, attention has been called to one project in making a book of some kind.

Another project may take the form of letter writing. In order that the work may be of greatest interest and also provide for individual differences among the children, each member of the class may be asked to make out an order for something he desires. In case something is needed for the school, competition might be introduced by allowing each child to attempt to make out an order for something he desires. In the end, the class could decide who had written the best order and he might be allowed to make the order to secure whatever was needed. Children at this age very often find advertisements for free material in catalogs and magazines. They may be encouraged to write the orders for these samples. In this connection it is well to call attention to the fact that this form of writing may well be correlated with penmanship.

Measuring Results.—If the aims set up by the third grade are realized, the children will be able to use simple exclamatory and interrogative sentences in connection with their written and oral compositions. These compositions will show proper paragraphing and punctuation, with no misspelled words. It is reasonable to expect that the paragraph contain eight or ten fairly well-connected sentences.

Although the Willing composition scale is not a perfect

measure, it may be used with some profit from the third grade on through the high school.

Grade Four.—The fourth grade should continue in a general way the lines of activity which were outlined for the third grade. Some emphasis should be given to originality in stories, and a somewhat critical study may be made of story structure. In this grade oral composition should be continued in connection with the various school subjects, and spoken errors should be corrected. In order to secure comprehension of words, children in this grade may be encouraged to make outlines of the subject for their oral and written compositions. Considerable practice should be given in the matter of writing short and familiar letters. As nearly as possible each letter should grow out of some genuine experience of the pupil. A good deal of attention should be devoted to the mastery of various technical phases of punctuation, capitals, wording, arrangement of thoughts, and neatness of form.

In this grade it is a common practice to give attention to the two important parts of a sentence—namely, the subject and the predicate. By methods of induction the child should be led to understand the significance of these terms. Some simple matters concerning verbs, such as present, past, and future tense, and number, may be taught children; and some few examples of descriptive adjectives may be learned.

Methods.—Oral composition is still to be stressed for the fourth grade. However, we need to remember that more written work may be required. Topical recitation

has value because it gives opportunity for the pupil to think logically and express his thoughts and prepare connected statements.

Story telling should continue in this grade very much as in the third grade, because we still need to take into account the fact that motor activity and the imagination are important factors in story telling. In this grade three types of story telling may be attempted,—namely, repeated, reconstructed, and original stories. In the first three grades only the repeated story has been used. In the fourth grade, children should be free to find a story for themselves. It is a good plan to have occasional periods when the child may tell the class any good story that he learned from any source whatsoever. That gives an incentive for outside reading and produces power to retain what is read. In this way much knowledge of history may be given, while the tales of travel and life in other parts of the world will teach many facts in geography.

There are a number of good Bible stories which may be read by children in the third, fourth, and fifth grades. The stories of Joseph, Moses, and David are good examples. At least one good long story should be read or learned in this grade. The "Adventures of Ulysses," "Robinson Crusoe," and the "Swiss Family" are stories which the children will enjoy very much.

Much interest in story work can be secured by using the reconstructed story in which the children impersonate certain characters as they imagine the characters talked.

A simple exercise may be cited in the case of the fable, "The Monkey and the Chestnuts." One child should be allowed to tell it as the monkey would have told it, and another, as the cat would have told it. The children will find that it is necessary to make a complete change in the pronouns before the story can be told. Fables are especially suitable for this work. The imagination is stimulated, and accurate speech habits may be formed.

The original story gives opportunity for the creative work and should be emphasized in the fourth grade. Ideas as to plot and characters may be drawn from literature and nature. The first products should be the result of the combined efforts of the whole class, each child suggesting some idea. Then a final arrangement of these ideas is made for the final story. Later, stories may be created by the individuals of the class.

An excellent form in which the original story may appear is the impersonation, in which children are asked to imagine they are objects of various kinds, and then they are required to tell stories in keeping with the character or objects represented. For example, a child may impersonate a bird, a dog, or a cat. Some children like to impersonate birds and wild beasts. Care should be taken to keep the imagination of the child within reasonable bounds during this sort of work.

Some good stories for reconstruction and repeated types are as follows: "The Frog Prince," "The House in the Woods," "The Snow Queen," "The Flax," "The Fir Tree," "Why Wee Billy Goat's Tail is Short," "The Com-

ing of the Prince," "The Angel and the Flowers," "Biddy and Randy," "The Story of Abraham," and "The Story of Ruth."

The fundamental forms of composition may readily be started in these grades. However, the children need not be concerned about what these forms are nor how they may be used.

Narration would be used in connection with picnics, fishing trips, and hunting trips. In the case of description, children may attempt to describe scenes in their reading, and the pictures will furnish excellent material for this form of composition. Some simple forms of expression may be used in which children are required to set out the successive steps in some process. These outlines should be made by the pupils under the guidance of the teacher. Such subjects as How to Play Basketball, How to Make a Bird Box, and How to Draw a Tree are all good.

Some argumentation may be taught in this grade also. In argumentation, children learn to appreciate the relation between cause and effect in events. Choose some well-balanced subject and allow each pupil to make some point or points in favor on either side. Give opportunity to any who desires to refute. In order that the work may be properly conducted, the teacher should hold the pupils to one point of discussion at a time, and it is well to keep a score of points and announce the winner. Arguments in the dialogs of stories and poems may be used as the basis in this work. For example: "The Quarrel between the Mountain and the Squirrel." The children may be

allowed to choose sides for arguments. "Shall we have a school fair?" may be made a topic for a good argument.

From six to eight poems and from ten to fifteen memory gems may be memorized during the year. A psalm and perhaps a familiar old hymn may be added to the year's work. These should not be selected by the teacher arbitrarily, but a considerable list should be called to the attention of the children and they be allowed to make their own choice. The work should be distributed through the year so that there will not be a burden at any one time. The following poems are suitable: "The Night Wind," "Down to Sleep," "The Village Blacksmith," "The Brook," "Sweet and Low," "A Child's Thought of God," "Robert of Lincoln," and "The Daffodils."

At least one period a week should be allowed for free discussion of the most important events of the week. The school library should have some papers and magazines for the children who do not have them in their homes.

In the matter of dramatization, at least three or four good plays should be worked up in finished form. By the close of the year, the children should be able to write the dialog for one short original play.

Projects.—Grade four has advanced far enough to work on one long problem. The giving of a program with an original play is suitable for this grade. The previous paragraph suggested in a general way how the original play should be written.

The writing of a play calls for reflective thinking, as

there is the problem of a plot, selection of characters, choice of language and the selection of suitable costumes. If the play is staged outdoors, additional discriminations will be necessary.

Measuring Results.—As we have already said in the chapter on Spelling, children in this grade should know how to use the dictionary efficiently and should be able to write a good short letter to their friends or an invitation to some Special Day exercises or to the presentation of their original play.

They may be tested by the Trabue Completion Tests and the Willing composition scale. The children should be able to indicate subject and predicate, recognize singular and plural nouns and tell whether a verb is in its present, past, or future tense. They should also be able to find simple descriptive adjectives.

PROBLEMS

1. In what ways can we secure greater respect for correctly spoken English?
2. How may we revise the language course so that every lesson may be vitally related to the child's present life as well as function in the future?
3. What is the right proportion of time to be given to oral and written composition in each grade?
4. How may the teacher of language secure habits of correctness in the use of language when the home and other teachers do not require children to speak and write correctly?
5. What are the instincts of children to which language work may be made to appeal immediately?

REFERENCES

Mahoney: *Standards in English.*
Leiper: *Language Work in Elementary Schools.*
Hosic: *Elementary Courses in English.*
Bryant: *How to Tell Stories to Children.*
Wilson and Wilson: *Motivation of School Work.*
Lewis: *Scales for Measuring Special Types of English Composition.*

CHAPTER IX

LANGUAGE—GRAMMAR AND COMPOSITION FOR THE 5TH, 6TH, 7TH, AND 8TH GRADES

Objectives.—It is exceedingly difficult to define objectives for the upper grade work in English. At the present time, the requirements for the course of study are so confused that it is hardly possible to make any statement to which teachers of English would uniformally agree. In discussing the topic Hosic says,* "Learning English involves four fundamental processes; hearing, speaking, reading, and writing. To this should be added some knowledge and appreciation of literature."

Mahoney said: † "The aim of the course in English for the elementary school is, first, to graduate pupils able to talk or recite for a few minutes in an interesting way, using clean-cut sentences and good enunciation; second, to graduate pupils able to write an interesting paragraph of clean-cut sentences, unmarked by misspelled words and common grammatical errors."

One other fairly good statement by Susan Anderson Fish may be quoted. She says: ‡ (1) "Students should

* "The Elementary Course in English," p. 12.
† "Standards of English," p. 4.
‡ "What Should Pupils Know in English When They Enter High School?" *English Journal,* March, 1914.

have the habits of reading intelligently." (2) "They should have the habits of speaking and writing their thoughts—in clear and grammatical sentences." (3) "They should have the habits of using capital letters and marks of punctuation correctly." In commenting on these objectives, Miss Fish says that it is a common complaint from teachers in high schools that pupils are unable to solve their problems in algebra and geometry because they do not know how to read them. Concerning the second objective she remarks that the pupil should be able to express his thoughts in clear and grammatical sentences, but that he cannot learn to do it by the study of technical grammar. Technical grammar is not English, and, except in a few particulars, it does not aid grade work in English. Regarding the third point she says that the only way to secure habits of accuracy in the use of capitals and marks of punctuation is for the pupil to have elaborate practice in such work. It is doubtful if learning many of the rules will be of great value. The way to learn the mechanics involved in the case is to have sufficient practice in writing. The only worth-while habits in the use of marks of punctuation are those which enable the pupil to put the marks in their proper places during the writing, rather than to go back and attempt to punctuate after a sentence has been written.

These objectives have been stated in the light of the pupil's future work in high school. At the same time it is evident on a little examination that these same objectives are equally as significant for the purposes of every day life as they are for the student who goes to high school

for additional training. The emphasis has been placed upon habits of using good English in every possible situation.

GRADE FIVE.—Oral composition should remain the foundation for written work, and the pupils should be able to write longer sentences and more extensive paragraphs than in the lower grades. Short stories may be told or written about animals or familiar objects. Some topics which have moral value may be introduced. Such topics as—"Is it fair for a boy to ride his bicycle on the sidewalks?" or "Should boys insist on carrying and using bean shooters?" or "What care should be given a pet rabbit?"

The following poems may be appropriate for this grade. They were selected as the result of an experiment which was recently conducted in the schools of ten cities of the United States. A long list of poems was put into the hands of each of 4,800 children. They were told to read the list carefully and select the ones they enjoyed most. This interesting experiment is described at length in the *Teachers College Record* for May, 1922. The following poems were selected for the fifth grade:

Children's Hour	Longfellow
Hiawatha	Longfellow
The Arrow and the Song	Longfellow
The Raggedy Man	Riley
Little Orphant Annie	Riley
Woodman, Spare That Tree	Morris
The Leak in the Dike	Cary
In School Days	Whittier

Christmas Everywhere . . . . . Brooks
The Night Has a Thousand Eyes . . . . . Bourdillon
Under the Greenwood Tree . . . . . Shakespeare
The Flag . . . . . Macy

It is well to compare this list with the selections proposed for the reading classes of the corresponding grade.

The children of this grade should learn at least one short poem each month. However, this need not be done in connection with the language work alone. The poems might be selected from the list proposed under "reading" or in connection with some geography or history topic.

Letter Writing.—Letters and informal notes which are in satisfactory form should be sent. Indeed, it is well to send as many of them as are based upon actual situations. Parents may be invited to attend the school exhibit, a radio concert, or a meeting of the parent-teacher association. Such work furnishes a direct motive to the child for writing and may be the cause of enlisting the interests of the parents or school board members in the activities of the school.

Picture Study.—In the chapter on Drawing, a complete list of pictures, by grades, was given. It should be utilized in connection with the composition work here.

Dictation Exercises.—A considerable amount of dictation should be given in this grade. Care should be taken to select material interesting to the child. By this time the child should be able to think in sentence units. The teacher should, therefore, read a short sentence once and expect the children to write it.

Jokes.—Occasionally students may be permitted to

relate humorous incidents or good jokes. Such an assignment should be made a day or two in advance to give the children time to find some good bit of material.

Grammar.—Some attention should be given to correct forms of verbs. Correct any wrong habits in using see, saw, and seen; do, did, and done; ring, rang, and rung; lie, lay, and lain; break, broke, and broken; and lay, laid, and laid. These forms should be used in sentences in this and the next grades until they are practically automatized for all probable uses which may commonly arise.

Punctuation and Capitalization.—Children should be taught how to write divided and undivided quotations. The comma should be used with a noun in direct address. Proper punctuation in connection with various forms in letters should be taught. Children may be taught the use of the hyphen for dividing the word at the end of a line. The apostrophe in contractions and possessions may be taught. In this grade, as in all other situations, we need to remember that correct expressions are learned very largely by imitation. Rules have very little value.

Klapper says: * "In baseball, the child gives all attention to the playing, not to the science of the game; in actual progress of the game the rules are mere incidentals. No boy has ever deliberately memorized the regulations governing various activities, yet what a mastery of them he has developed! The science of the game and the niceties of form which the child acquires are unconscious

* "The Teaching of English," p. 5.

results of constant playing for the sake of the game itself rather than for its technique." The application of this to the learning to use a language correctly is obvious. Rules and regulations have been developed to describe form after that form has been attained.

Projects.—Many good projects may be taken directly from the language and reading material of this grade. The dramatization of some portion of a study is always an interesting project. Robin Hood is a story which lends itself splendidly to dramatization, and much motor activity for both boys and girls may be secured.

Another type of project is found in descriptions of children's activities, as "how to build a snow fort and defend it, make a doll house and furnish it, fly a kite, sail a boat, dress a doll or guide a coaster." All this offers almost unlimited opportunity for the play instinct and for motor activity.

Measuring Results.—By the close of the fifth grade, children should be able to write with proper punctuation and capitalization the common forms of invitations and friendship and business letters. The child should be able to recognize readily the various forms of simple sentences and should be able to give a good oral composition about some interesting subject in a connected paragraph of eight or ten lines. By this time the teacher should have developed a system of standard markings for correcting. "Woolley's Handbook" offers a good system. Such a set of markings should be applied for corrections in compositions for all of the upper grades.

The habit of leaving a margin should be established by

the close of the fifth grade. The pupils may be tested by the Willing composition scale.

GRADE SIX.—A course for the sixth grade follows in general character the one outlined for the preceding grade. Oral composition should take up at least one-half of the language work of the year. The various forms of composition: narration, description, exposition, and argumentation, should be continued, allowing the pupils to bring up interesting subjects with which to employ the forms.

The following poems were selected for this grade in the same manner as those listed for the fifth grade:

The Barefoot Boy	Whittier
The Wreck of the Hesperus	Longfellow
Our Flag	Sangster
Old Ironsides	Holmes
The Landing of the Pilgrims	Hermans
The Flag Goes By	Bennett
Nobility	Cary
O Captain! My Captain!	Whitman
Concord Hymn	Emerson
The House by the Side of the Road	Foss
Abou Ben Adhem	Hunt
Out to Old Aunt Mary's	Riley
The Whitefooted Deer	Bryant
Home Sweet Home	Payne

Grammar.—Distinction between the following pairs of words should be made clear in this grade: learn, teach; guess, think; leave, let; funny, strange, queer; set, sit; bring, fetch; rise, raise; well, good; less, fewer; lay, lie.

The noun may be studied for more accurate and correct forms. A study of pronouns may be made during the

year. The study should include person, gender, and agreement with antecedent. These studies should be made inductively.

The adjective may be studied to point out how it enriches language and conduces to better arrangement and better comparison. Here, for the first time, the adverb in its simplest forms may be introduced as a predicate or verb modifier and for a more adequate comparison. These should be introduced in a non-technical fashion inductively.

Projects.—This grade may have the opportunity to entertain the Parent-Teacher Association at a monthly meeting. The pupils should learn to welcome and entertain their parents. In connection with the entertainment some children should decorate the room, and others serve if refreshments are used in connection with the entertainment. Individual differences may be taken into consideration in such a project by allowing each child to do the part for which he is best fitted.

One or two simple plays may be presented. These plays may be based on some familiar story or poem. This project will involve costume-making, preparing stage scenery, and making posters. This offers a splendid opportunity for motor activity and provides for individual differences.

Measuring Results.—By the close of the sixth grade the children should be able "to express clearly and consecutively, either in speech or in writing, such ideas as are familiar to them; to avoid, whether in speech or writing, gross incorrectness of grammar; to compose and mail a

letter, using a form acceptable for general purposes; to read silently and after one reading to reproduce the substance of a simple story, news item or lesson; to quote accurately and understandingly several short poems." *

Several times during the year the written compositions should be scored carefully. The Willing composition scale may be used.

Grade Seven.—In the seventh grade it is common practice to introduce considerable grammar in connection with the language work. To be sure, some grammar of an informal nature has already been outlined for the preceding grades. It is well at the beginning of the year to bring into good form, by a quick review, the facts of grammar previously learned.† The chief difficulty about instruction in grammar is that it becomes abstract and technical unless it is used as a means rather than an end in itself. The work must be made as concrete as possible. Abstract conceptions are meaningless to elementary school pupils. All principles and definitions should be developed inductively. Words should not be taught as "parts of speech." A study of the function of a word should enable the pupil to classify it. We need to remember that in the English language a word is what its use in a particular context makes it. Some attention should be given to the kinds of sentences: declarative, imperative, interrogative and exclamatory. A study of the two major parts of a sentence, the complete subject and the complete predicate, should be made. Then the subject with its

* "Fourteenth Year Book of the National Society for the Study of Education," pp. 107 and 108.

† Carpenter, Baker and Scott, "Teaching of English in Elementary Schools," p. 146.

modifiers and the predicate with its modifiers should be considered. In some simple cases it is well to observe the meaning and the uses of objects and attribute complements.

The oral composition should consist of one-minute talks on current events, descriptions of interest, and exciting experiences. Giving a book review or making arguments on some topics growing out of subjects which may readily be taken from geography or history are also good exercises.

In the written work the plan which has been outlined for the last two grades may be followed. It would be reasonable to expect the sentences to be a bit longer and the composition to lengthen into well-rounded paragraphs.

The following poems are interesting to seventh grade students:

Village Blacksmith	Longfellow
Paul Revere's Ride	Longfellow
Evangeline	Longfellow
Barbara Frietchie	Whittier
The Deacon's Masterpiece	Holmes
In Flanders Fields	McCrae
Somebody's Mother	Unknown
Kentucky Belle	Woodson
Charge of the Light Brigade	Tennyson
A Psalm of Life	Longfellow
The Skeleton in Armor	Longfellow
Horatius at the Bridge	Macaulay
The Trailing Arbutus	Whittier
Grandmother's Story of Bunker Hill	Holmes
The Blue and the Gray	Finch

This list may be compared with the sixth grade list and such selections made as are most desirable for the children.

Projects.—American Speech Week, popularly called Good English Week, is recommended as a project for this grade. One or two simple poems and plays should be dramatized during the year. The class may be interested in writing a simple play for some occasion. In any of these cases it will be necessary for the teacher to give direction for the work.

Measuring Results.—By the end of the seventh year, the pupils should be able to recognize readily declarative, imperative, and interrogative sentences and should be able to separate sentences into their two major parts, the complete subject and the complete predicate. The written composition should be measured by the Willing composition scale.

Grade Eight.—In the eighth grade the work in grammar is continued with more emphasis on the sentence and its parts, and the parts of speech are also taken up for additional use and study. Simple, compound, and complex sentences are distinguished. Case, gender, and number of nouns and pronouns may be studied.

Oral and Written Composition Work.—Better results may be obtained in the study of grammar from the literature which has been studied in connection with the composition and the reading outlined for the grades, than by bringing in special material with which to do grammar "stunts."

Oral and written composition work should be continued

in this grade. Work of a more mature nature should be expected of pupils, and the composition should be slightly longer and more complete in form. It is not well, however, to encourage too long compositions, either oral or written, for that invites long, loose constructed sentences. In general, sentences should be kept short and to the point.

Suitable reading material for this grade has been outlined under the head of Reading.

Projects.—Compose and stage a short play having a simple plot. The play should be written out completely. This will allow good opportunity to make use of all that has been learned in composition, punctuation, capitalization, and paragraphing. Some incident in American history may be used as the basis for the play, or it is very easy to select a simple plot from some of the stories read in connection with literature. The author saw the Constitutional Convention of 1787 presented by a group of eighth grade children in colonial costumes. The historical setting was well presented, and the major problems involved in the sessions of the convention were set forth in a most interesting way by boys and girls representing the real characters who participated in the convention.

The meeting of a city council or a county court may furnish a project for this work. Moreover, such projects have immediate bearing on the community life.

Measuring Results.—Of course there are no fixed standards by which to measure the results in this grade. However, attention should be called again to the objectives which were set out in the beginning of the chapter.

If these objectives have been realized within reasonable limits, it may be said that the English instruction in the grammar grades is in a large measure successful. If the children are able to talk fluently in correct language forms, and have set up habits of reading good literature and are able to write about the ordinary things of their surroundings in correct and grammatical sentences, they have made a good start toward the effective use of the mother tongue. The eighth grade children should be able to make standard scores on the Willing scale.

PROBLEMS

1. How may freedom in using correct expressions be obtained when children seem affected in trying to use them?
2. To what instinct would you appeal to secure neatness in written work?
3. How is it possible to create a real desire on the part of the children to express their experiences in good form either in oral or written language?
4. Is it possible to tell by a child's command of English whether he belongs in the fifth or the eighth grade?
5. May students be brought to appreciate the value of being courteous in speech and actions?
6. How many poems should an eighth grade child be able to recite?
7. Make a list of ten books which every eighth grade boy ought to read.
8. Make a list of ten books which every eighth grade girl ought to read.

REFERENCES

1. Mahoney: *Standards in English.*
2. Hosic: *Elementary Course in English.*
3. Klapper: *The Teaching of English.*

4. *Fourteenth Year Book of National Society for the Study of Education.*
5. Rapeer: *How to Teach Fundamental School Subjects.*
6. Lyman: *English Grammar in American Schools Before 1850.*
7. Lewis: *Scales for Measuring Special Types of English Composition.*

CHAPTER X

ARITHMETIC

History.—The following historical account is taken primarily from Professor Monroe's scholarly treatment of the subject.*

In the preface Professor Monroe says: "The arithmetic with which the American school boy of the 20th century wrestles differs in many respects from the ciphering which was truly a stumbling block to many a child in Colonial days. Not only have there been significant changes in the subject matter of arithmetic but also in the aim of instruction, in the place of arithmetic in the plan of education, and in the methods of teaching the subject."

The subject of arithmetic was not generally taught in England at the time of the settlement of the American colonies nor during the Colonial period. Indeed, arithmetic was not considered very essential to a boy's education, unless he could not learn the ordinary school subjects and was, therefore, required to take up a trade. Of course, all of this applied not at all to the sons of gentlemen.

There is considerable evidence, however, that arithmetic in a very elementary form was taught in nearly all

* "The Development of Arithmetic as a School Subject." Bulletin No. 10, 1917.

of the American colonies from the beginning. As their commerce grew and they established a currency, the interest and need for some knowledge of numbers increased.

According to Professor Monroe the development of arithmetic as a school subject may be divided roughly into four periods. Namely (1) the time before 1821; (2) from 1821 to 1857; (3) from 1857 to 1892; and (4) from 1892 to the present time. A very brief discussion will be given each one of these periods.

The Time Before 1821.—Up to 1821 the cipheringbook method of teaching arithmetic was used very generally. Arithmetic was not taught to children before they were about ten years of age. The chief functions of the teacher were to set sums for each child, to give rules, and to see if answers were correct. The instruction was altogether of an individual nature. Rules were committed and then applied to a few problems. Generally the texts contained not more than ten problems on a subject. Some of the texts were organized on the inductive plan. The principal rule was the rule of three. There was almost no inductive instruction, drill, oral arithmetic, class instruction, or reasoning. The utilitarian value of arithmetic was considered and not the development of the child.

In 1821 there came a radical change in the subject matter, method of teaching, and objectives of arithmetic. This change was caused by the advent of Warren Colburn's "First Lessons in Arithmetic on the Plan of Pestalozzi." Concerning Colburn, Monroe says: *

* *Ibid.*, p. 53.

"Warren Colburn exerted a greater influence upon the development of arithmetic in the United States than did any other person." Colburn had made a critical study of the plans and ideas and philosophies of Pestalozzi, and the text was written on Pestalozzi's plan. In this text, Colburn recognized as of prime importance the utilitarian value of arithmetic, but he considered that it has another value of almost equal importance and that is "to discipline the mind," for he says, "Arithmetic when properly taught is acknowledged by all to be very important as a discipline of the mind, so much so, that even if it had no practical application, it would still be worth while to bestow a considerable portion of time on it for this purpose alone."

In this new text Colburn introduced primary arithmetic to be taught by means of objects such as blocks, sticks, and beans, and here for the first time we have plans for mental arithmetic. A large part of his text consisted of problems that were to be done mentally. He gave considerable space to common fractions and omitted the rule of three, as such. He advocated class instruction instead of individual instruction. He said that arithmetic should be taught by directing the children to work out a number of concrete cases and then formulate their own rules and generalizations. It will be observed that here we have exactly the psychology of modern times concerning the inductive method of teaching arithmetic. He placed more emphasis upon drill, analysis, and motivation or making the work interesting. In short, apart from his belief in the disciplinary values of

arithmetic, Colburn believed, very much as we do to-day, that in the matter of arithmetic, as in other subjects, we should teach the child rather than the subject.

From 1821 to 1857.—From 1821 to 1857 arithmetic as a school subject received much attention. Many texts were written and new methods were proposed, all of which showed Colburn's influence in a marked degree. The formalized aspect of arithmetic based on the doctrine of discipline grew until it almost over-shadowed everything else. Nearly all of the texts were written in three-book series: a primary, a practical, and an intellectual arithmetic.

There are two names inseparably connected with the development of arithmetic in this period; Charles Davies (1789-1876) and Joseph Ray (1807-1855). Davies published many text-books in arithmetic. Among the most important may be mentioned, "First Lessons in Arithmetic," published in 1840; "Davies' Intellectual Arithmetic" and "Davies' Practical Arithmetic." He also published arithmetics and other treatises designed for academies and colleges.

Next to Colburn's influence in America in the development of arithmetic, undoubtedly that of Joseph Ray may be ranked as of the greatest importance. Ray published texts on arithmetic to the number of almost twenty, the first book being "Ray's Tables and Rules in Arithmetic," published in 1834. Later this was remodeled and called "Part First." Finally there was a three-book series, including a Primary Arithmetic, an Intellectual Arithmetic, and Part Third, sometimes called Practical Arithmetic.

Ray also published a higher arithmetic for academies and colleges.

Of all the text-books of this period, Ray's series was the most popular, continuing in very general use after the modern influence and Pestalozzianism came in. During this period, Colburn's influence in the matter of text-books was still evident, but obviously the methods of teaching were not modeled after the ones he proposed.

From 1857 to 1892.—From 1857 to 1892 texts still were very generally modeled on Colburn's ideas, but the notion of mental discipline became the all-important thing in the teaching of arithmetic. In this period arithmetic was taught mainly by devices and drill, with much emphasis upon definition.

One committee, after studying the problems of arithmetic in a number of schools in the early nineties, summarized its report as follows: "Arithmetic has thus become a science of difficult trifles and intricate fooleries peculiar to common schools and remarkable chiefly for sterility and ill-adaptedness to any useful purpose." Undoubtedly this is somewhat of an exaggerated statement of the case. However, the author was a student in the rural schools during the latter part of this period and he remembers with great vividness many foolish stunts through which he was put in the name of arithmetic.

The Modern Period.—About 1890 American educators became very much interested in the principles of psychology and philosophy of the great German educator, Herbart. Herbart's theory of apperception and his doc-

trine of interest placed emphasis upon the content of a subject rather than upon discipline. Consequently these ideas set up controversies about the disciplinary value of arithmetic and other subjects. The works of the National Herbartian Society aided in provoking the discussion. Charles De Garmo, and Charles and Frank McMurray published books on the Herbartian method. About this time, also, the psychological movement was started in this country by the great William James, whose principles of psychology were such as to cause great doubt as to the tenability of the doctrine of formal discipline.

In 1892 the Committee of Ten of the National Education Association recognized the possibilities of formal discipline as a value of arithmetic, but said: "It is greatly inferior to what may be obtained by a different class of exercises." This repudiated the doctrine as it had been applied.

Another great factor in this new development was John Dewey, formerly Professor of Psychology at the University of Chicago, now at Columbia University, who had participated somewhat in the Herbartian movement. Concerning his work Monroe says: * "The most important constructive contribution of this period was made by Professor John Dewey. His principles applied to arithmetic mean that to teach it efficiently the school must produce situations which call for measurements and relating of quantities."

All of this caused a great reaction against the teaching

* *Ibid.*, p. 130.

of arithmetic as a means of securing some sort of discipline. However, the debate as to how valuable arithmetic is as a subject for discipline is yet undecided.

Throughout the history of the science the subject-matter has been increased continually, and tradition has tended to keep the old topics. Obviously, this must be the case if discipline is to be one of the objectives for the study. However, this has caused much obsolete subject-matter to persist in texts far beyond the period of its actual value. Yet we have witnessed significant changes in subject-matter. The great rule of three has been reduced to proportion; such topics as permutations and combinations, and positive and infinite series, have been transferred to texts of higher mathematics; other topics such as fellowship, certain tables of denominate numbers, much of exchange, alligation, duodecimals, and annuities have been dropped, because the need which they satisfied no longer exists.

Because of the introduction of decimal currency and the introduction of the metric system into many scientific and commercial situations, decimal fractions now occupy a much larger place in arithmetic.

Generally practical problems were added, but on account of changed social and economic conditions, they have in turn been rendered obsolete. However, tradition still keeps many subjects in the texts when they have no utilitarian value. As a matter of fact, nearly all of the texts published recently still contain some ancient history in the matter of arithmetic and a good many puzzles. At the present time it would seem that there is some ten-

dency to get back to Colburn's ideas. The tendency is to have nearly all the work presented by the inductive method, and the subject-matter which has a significant relation to the environment of the child is made the basis of instruction. Mental and written arithmetic are now taught in the same class.

Recent Investigations.—In the last ten years several critical investigations have been undertaken in connection with the various aspects of arithmetic. Jessup and Coffman in "Supervision of Arithmetic," the result of an elaborate investigation, say: "It seems safe to recommend that the following subjects be given little or no attention in elementary course of study; alligation, unreal fractions, furlongs, progressions, dram, apothecary weight, compound proportion, true discount, surveying tables, cube root, troy weight, annual interest, paper folding, long method of G.C.D., foreign money, compound fractions, partnership, reduction of more than two steps, L.C.M., rod in square measure, metric system, aliquot parts, cases in percentage and longitude and time." Their conclusion is that these topics are of little value and that the instruction in them should be minimized.

There has been much discussion, too, about arithmetical abilities and what determines them. Mr. C. W. Stone has done considerable research work upon this problem and he says: * "There is no one factor that produces abilities. The course of study may be the most important single factor, but it does not produce abilities unless taught. The other essential conditions for successful

* "Arithmetical Abilities," p. 91.

teaching are children and teacher of usual abilities, a reasonable time allotment, intelligent supervision, and adequate means of measuring results." Mr. Stone continues,* "The study called arithmetic makes demands upon a plurality of abilities. Hence it is inaccurate to speak of arithmetical abilities of pupils, and it is bad educational practice to treat the subject as though it were a unity instead of a plurality."

His investigations have warranted the conclusion that there is no direct relationship between the amount of time spent on arithmetic and the result obtained. Moreover, that the old notions that arithmetic must be taught at some special time in the day has nothing to do with learning. Another question about which there has been considerable discussion is the relationship between oral and written arithmetic. Historically we know that oral arithmetic must have preceded the written form. In another paragraph on the history of arithmetic, attention was called to the relationship between oral and written arithmetic. The contest is yet unsettled as to the proper distribution of emphasis and time on the two types of problems. Stone and Millis say: † "We prefer rather, that the pupil be encouraged to solve every problem as far as possible without a pencil, as in real life."

Thorndike says: ‡ "Devotion to oralness or mentalness as such is simply fanatical." The teacher should judge by the amount of practice received by the class per hour spent, the ease of correction of the work, the ease of

* *Ibid.*, p. 43.
† "The New Stone-Millis Advanced Arithmetic," p. 8.
‡ "Psychology of Arithmetic," p. 263.

understanding the task, the prevention of cheating, the ease and sociability of the work, the freedom from eye strain, as to whether the work should be oral or written. The common practice of having no use made of pencil and paper, or having all computation and verbal analysis written out elaborately, is unfavorable for learning.

With regard to the topics and problems to be omitted from the course in arithmetic, Professor Thorndike * suggests the following: (1) Those problems which contain rare and unimportant words. He says: "A pupil should not be expected to solve a problem that he cannot read. Moreover, he should not be expected to read words in grades one to four inclusive which he has never seen before." (2) Problems which contain trivialities and absurdities may be omitted. To illustrate: "Eight times the number of stripes in our flag is the number of years from 1800 until Roosevelt was elected President. In what year was he elected?" (3) Those problems whose answers would, in real life, already be known. For example: "After a clerk had addressed 2,500 letters, 4/9 of the names on the list had been used. How many persons on the list?" (4) Problems containing needless linguistic difficulties. (5) Problems that require reasoning should be of such a nature as to have vital importance to the child at the present time. As far as it is possible he should be trained in real life situations.

Objectives.—Taking into account the five objectives stated for the elementary school in an earlier chapter and giving due consideration to the aims and values of arith-

* *Ibid.*, ch. 4.

metic as stated by Thorndike, Jessup and Coffman, W. S. Monroe, J. W. A. Youngs, Brown and Coffman, and D. E. Smith, we may decide upon the following objectives for the teaching of arithmetic: (1) To give the pupil a knowledge of the meaning of numbers and to teach the language of arithmetic. (2) To automatize the four fundamental processes. (3) To make the child efficient in solving problems which occur in the life of the average citizen. (4) To aid the child in an appreciation of moral values, truth especially, by the axiomatic content. (5) To present problematic situations so that the pupil will acquire helpful forms of analytic reasoning and reflective thinking. (6) To use arithmetic as a means of aiding the child's biological development and physical efficiency. (7) The extensive use of the bar or line graph in newspapers, magazines, and books requires that a child should learn to read this form of mathematical expression very early in his course. Consequently, throughout the grades, some attention should be given to this work. (8) The equation as a method of expressing values is in such common use that it should have much more attention than ordinarily has been devoted to it. The simplest form of addition, such as two plus two equal four, and, in multiplication, three times four equal twelve, are equations. Throughout the grades the use of the equation in its simplest forms should be taught.

Grade One.—The subject-matter of the first year, says Mr. Stone,* should consist in the following: (1) Reading and writing numbers to 200. (2) Counting by 1's, 5's,

* "How to Teach Primary Numbers," p. 11.

and 10's to 100. (3) Reading Roman numerals to XII on the clock face. (4) The meaning of "dozen." (5) Such common measures as inch, foot, yard, pint, quart, gallon, pound, and ounce. (6) The coins: penny, nickel, dime, quarter, half-dollar, and dollar. (7) Time: the names and the numbers of the days of the week, and the names and the number of the months in the year.

Mr. Stone suggests also in this same connection the following number activities: (1) The number of children in a class or in a game. (2) The number of chairs or desks needed for the class. (3) The distribution of books, pencils, pens, pads, or other materials. (4) Finding a page in books. (5) Measuring to find how tall children are. (6) Telling the time of day. (7) Finding the cost of toys, carfare, luncheons, and school-books and equipment. (8) Interpreting the meaning of measures spoken of at home, or used in school activities. This should include the measures mentioned in the previous paragraph.

Methods.—The first unit of instruction should be to count to ten. Naming the numbers in sequence can be accomplished quickly by drilling, upon saying the names of the numbers in proper order without actually counting things. That is, the child rhythmically gives the names of the numbers in their proper order without actually knowing what the names mean. As a help in getting the proper sequence, a number of simple rimes may be used.

As the child then calls the names of the numbers in proper order he should be taught the meaning of these

names through counting objects—rational counting. That is, through counting things about the room he sees the meaning of the names he has learned. Mr. Stone says further: "The symbols for the numbers should not be used until the corresponding number idea is clear to the child. But before any of the primary number combinations are taught, the pupils should recognize the meaning and names of the figures. Thus they should associate the figure with the name and with the objects." In this same connection Thorndike says: * "Any word or figure acquires meaning by being connected with some real thing, event, quality, or relation. Six is mere nonsense except as it goes with six real boys, beans, toothpicks, inches, feet, and the like."

In this connection as well as in other grades, the teacher should make her approach to the problem through the natural tendencies of the child prominent at this age. That is to say, she should reach the child through its tendency to play, to imitate, to attract attention, and through curiosity and a desire for ownership. For this purpose such games as bean bag, ring toss, tag, and playing store are useful.

The second unit of instruction is counting by 10's to 100 and this is easily accomplished by making use of the familiarity of the sounds between 2 and 20; 4 and 40, and so on.

The next step is to fill in each decade with one, two, three, and so on, as 21, 22, 23. This counting should be rationalized and automatized by having the children

* "New Methods in Arithmetic," p. 106.

count money, scores in various games, and many significant objects about them.

In every case, actual measures should be used and seen in real situations, when the problem concerning the common measures is under consideration.

Games and Projects.—For the games and projects the following are suggested: bean bag, climbing the stairs, the merry-go-round, game of months, and playing store.

Measuring Results.—By the end of the first year, children should be able to count to 100 by 1's, 2's, 5's, and 10's. The simple combinations to twelve should be known. The children should be able to recognize and use the common measures listed in the paragraph above. They should be able to make change involving pennies, nickels, dimes, quarters, and half-dollars.

Stone, in summing up the work of the first year, says: * "By the end of the first year the pupils should have fairly clear number concepts. Through counting they have been able to find the 'how many' needed in the school, play, or home, thus laying the foundation for their later work. In later games the 'how many' will be found by a shorter method, addition or subtraction. Aside from definite number concepts, they have acquired many size concepts such as: large, small, big, little, long, and short; and form concepts such as: square, circle; and a considerable number of arrangement concepts as: up, down, over, under, top, bottom, right, left, forward, back, and so on. Besides this the children have picked up many of the primary facts of addition and subtraction through finding the 'how

* "How to Teach Primary Numbers," pp. 16-17.

many' that they have needed in the various activities in which number has been applied."

GRADE TWO.—In the second grade we usually give number work a definite place on the program. Unfortunately, however, as in the case of the first grade, it has not been determined by experimental evidence or any sort of scientific investigations just exactly what problems and topics should be presented. The consensus of opinion, derived from the studies of Jessup, Thorndike, Stone, Monroe and others, is about as follows: (1) The children should be able to read numbers to 1,000. (2) To read and write dollars and cents. (3) To know the forty-five primary facts of addition. (4) To know the eighty-one primary facts of subtraction. The newer method seeks to coördinate addition and subtraction. (5) Some preparation for work in written addition and practice in adding columns of three or four numbers using the primary facts. (6) Written addition of two-figured numbers of not more than four numbers, usually not involving carrying. (7) Written subtraction of two- or three-figured numbers, but no borrowing. (8) The meaning of such terms as add, subtract, sum, difference, and remainder should be taught. (9) The signs,—plus, minus, equality, dollars, and cents also should be taught. (10) Fractions: (a) Part taking tables in multiplication and division. (b) Equivalents: 1/2; 2/4; 3/6; 4/8; 5/10. (c) Addition and subtraction of simple fractions in oral work, using illustrative material. (d) Decimal point used in writing dollars and cents.

Methods.—In this grade, as in grade one, it should be

remembered that the work should be done with concrete material as far as is possible. Moreover, children should be made to understand as many as possible of real situations and cases with the various types of activities mentioned. We need to remember that this work is no more difficult than the other forms of school activities presented. The fundamental instincts of the children are brought into play in connection with the work. The play spirit, the motor aspects of learning, and the desire for ownership need to be employed continually if good work is accomplished. Moreover, the laws of habit-formation will need to be used intelligently to automatize the various number processes.

Games and Projects.—The domino game is a good one for this grade. So are the addition race, and the addition relay race.

In the second grade, flash cards for number drill may be used in the same manner as we do in connection with reading. The pupils may cut out the numbers and the signs, plus and minus and so on, and paste them on the cards. These cards may be used for flash purposes. Here we have a good opportunity for motor activity as well as for the introduction of the play spirit. In this grade, as in the first, playing store is a good project, for it affords many opportunities for number work. A savings' bank may be used for a class project.

Measuring Results.—By the close of the second year the children should have completely automatized the forty-five addition combinations and the eighty-one pri-

mary facts for subtraction. They should be able to tell the time by the clock and use with some degree of efficiency such measures as inch, foot, yard, pint, quart, and gallon. They should also be able to read and write Arabic numbers to 1,000 and to read and write Roman numbers to twelve.

Grade Three.—It is common practice to have some sort of primary text for the third grade. It is highly important when a text is used that it harmonize with present-day psychology. By this we mean that it include such materials as will be found in harmony with the discussions of our objectives. The following topics and problems are usually treated in the third grade: (1) The multiplication tables and the corresponding division tables. (2) Frequent reviews in addition and subtraction to increase the speed and accuracy in the forty-five combinations in addition and the eighty-one subtraction facts.

Stone says: * "With reference to the multiplication tables and the written multiplication learned to multipliers of one figure and to multiplicands of three-figured numbers; with reference to division of each short division learned to a quotient of three figures; to numbers learned; it is obvious that such terms as division, multiplication, and quotient are to be taught in connection with this grade." It is common practice to give considerable attention to denominate numbers in connection with the tables for the same in this grade.

Methods.—Stone advocates the "addition method"

* "New Methods in Arithmetic," Ch. 4.

of subtraction because, he says: * "No teacher can hope to teach the 'taking away' method successfully or to develop much skill when using it." In teaching multiplication, the children should be made to understand that multiplication is only an economical method of addition when the addends are all equal. In this grade also the simple forms of fractions and problems of division should receive very careful attention.

Games and Projects.—To plan and find the cost of a Thanksgiving dinner; to make a kite (this will involve problems of cost, and measuring); the multiplication race; to make out a grocery list; the game of fractional parts and the game of division are all very useful in this grade.

Measuring Results.—By the end of the third year the pupils should have a fairly good knowledge of the processes of addition, subtraction, multiplication, and division. The Courtis standard tests may be employed to measure progress in addition and subtraction. The children should know how to multiply simple numbers using one figure in the multiplier, and should be able to solve problems in short division with one-figure divisors where the problems do not involve fractions. They should also have some knowledge of the simple processes in common fractions.

Grade Four.—The consensus of opinion is that the fourth grade should completely automatize the processes involved in the mastery of the four fundamental operations.

Course of Study.—(1) Reading and writing numbers to

* "New Methods in Arithmetic," p. 96.

include 100,000. (2) A complete mastery of the tables of addition and multiplication, with corresponding subtraction and division facts. (3) A considerable treatment of simple fractions. (4) The solution of problems in multiplication with two figures in the multiplier. (5) The teaching of long division. (6) Multiplication by 10 and multiples of ten. The consensus of opinion is that the study of the tables of denominate numbers should be completed in the fourth grade.

Games and Projects.—In this grade much attention must be spent on the four fundamental processes in order that they may be completely automatized. This can easily be accomplished by drill, but the drill must be conducted in such a way as to utilize the habits of the child in conformity with the laws of habit-formation. The games involving addition, subtraction, and multiplication should be utilized here to secure interest and efficiency.

Such projects as making up a bill of fare; making out a list of materials necessary for a football field or a baseball field; making out a list of materials for a camping trip, together with their cost, are all good. Everything that touches the life of the child involving number concepts should be used instead of relying upon dry book material.

Measuring Results.—By the end of the fourth grade, the children should have completely automatized the fundamental processes and be able to use them with facility and accuracy. Yet it will be necessary to allow for individual differences. Practice tests such as the Courtis

and Studebaker should be provided so that each child may have an opportunity of bringing himself up to the standard in these processes.

Grade Five.—A brief review of the fundamental processes with integers should be given at the very first of the term, and there should be some practice in the fundamental processes throughout the year to keep up the accuracy and add to the speed. There should follow also a thorough presentation of the fundamental operations with common fractions. In well-organized schools it is possible to add the element of percentage. These, with the business denominate numbers constitute the main work of the year. In some cases a bit of percentage is taken up in connection with the teaching of common fractions. However, percentage belongs to the sixth grade.

The following outline of the list of essentials for the fifth grade has been formulated from the Baltimore County Course of Study and Thorndike's "New Arithmetic."

1. Integers and their processes.
2. Fractions.
   a. Common fractions. Addition and subtraction of fractions involve the following, which must be studied before the advanced fundamental processes can be understood.
      (1) factors; (2) addition and subtraction of fractions; (3) multiplication of a fraction by an integer and by a fraction; (4) multiplication of a mixed number; (5) division of a fraction by an integer and by a fraction.
   b. Decimal fractions. (1) Notation, not more than six orders. (2) Decimal counting. Decimal counting

is a means of overcoming the common errors in decimal notation.

3. Denominate numbers. Add, subtract, multiply, divide, and reduce with denominate numbers, using not more than two steps.

   (a) United States money, (b) time, (c) capacity, liquid and dry, (d) weight, avoirdupois, (e) linear feet, yard, and rod, (f) surface, square feet, square yard, and square rod, (g) cubic measure, and (h) circular measure.

4. Percentage, simple aliquot parts of 100 expressed in decimal and percent equivalents.
5. Geometric measurements.

   (a) surface forms, rectangles and triangles, square, rhombus, parallelogram, trapezoid, oblong; (b) area of rectangles and triangles; (c) volume of rectangular solids; (d) scale work of 1 inch, ¼ inch and ½ inch.

6. Bills, receipts, checks.
7. Industrial, social and commercial problems.
8. Solution of problems (much oral work).

   (a) sign solution, (b) analysis, (c) approximating. (d) graph and scale work, (e) written solution.

9. Games.
10. Correlate the arithmetic with industrial arts projects, drawing, and geography.

Projects.—(1) Study the cyclometer. (2) Study an ordinary railroad table. (3) Study a table for the use of defining the rates for parcel-post packages.

In the correlation of arithmetic and manual training or home economics or drawing, many projects may be developed.

Measuring Results.—By the close of the fifth grade the children should be able to manipulate common fractions

with facility and accuracy. Likewise, they should have a good knowledge of denominate numbers and be able to meet the standards of the Courtis and Woody-McCall tests in the fundamental operations, and of the Stone tests for reasoning ability.

GRADE SIX.—The most important new element introduced in the sixth grade is instruction in percentage in its various aspects and applications. The course of study has been adapted from the main features of the Baltimore Course of Study, the "New Thorndike Arithmetics," and a number of city and state courses of study.

1. Integers. (a) addition, (b) subtraction, (c) multiplication, (d) division, (e) squares of numbers between 1 and 25.
2. Accuracy and speed.
3. Fractions.
   a. Common fractions, addition, subtraction, multiplication, and division. Insist upon the use of such terms as "factors," "multiples," "test for divisibility." Teach the short form of factoring as 2^2, 3^2, etc. Keep the work in fractions simple.
   b. Decimal fractions. (1) notation to six orders, (2) decimal counting, (3) addition, (4) subtraction, (5) multiplication, (6) division; use numbers of not more than three decimal places.
4. Percentage (the main work of the year). Fractional, decimal and percent equivalents.
5. Denominate numbers.
   a. Reduction; not more than three steps.
   b. Processes; addition, subtraction, multiplication (not more than three orders) and division.
   c. Tables, used in the immediate daily social and industrial surroundings—square, cubic, dry, liquid, avoirdupois, circular, wood.

d. Relation between facts of the different tables.

6. Geometric measurements.
   a. Surface forms—rectangle, quadrilateral, circle and triangle.
   b. Area—rectangle, triangle, and circle.
   c. Volume—square, prism, pyramid.
   d. Scale work.
   e. Graphs—thermometer readings, attendance and other statistical data.
7. Solution of problems.
8. Problems dealing with ordinary home affairs, business affairs and industrial conditions in the neighborhood.
9. Solution of problems with much oral work.
   a. Sign solution—indicate the processes by signs.
   b. A single line statement involving the equation idea.
   c. Approximating.
   d. Ratio.
10. Bills, receipts, postal forms.

Projects.—For practice in percentage, the children should calculate the standing of baseball, basketball, and football teams. They may determine their positions in the various elementary school subjects in connection with standardized tests. Catalogues also furnish a good basis for figuring percentage. Keeping an expense account for a month is a good project for children in the grammar grades.

Measuring Results.—At the close of the sixth year, children should have a complete mastery of common and decimal fractions; facility and confidence in treating problems involving various types of percentage; and should measure up to standard in the fundamentals by the Courtis research tests and the Stone tests for reasoning ability.

Grade Seven.—In the seventh grade the pupil should

be acquainted with the large number of applications of the knowledge which he has already secured in the previous grades. The problems which relate to percentage may be mentioned as; price-fixing, inventory, insurance, taxation, salesmanship, receipts and bills; discounts for cash and trade discounts; paying by check, by mail, by draft or telegraph; profit and loss, and commission. Another application of percentage relates to borrowing and loaning money. Pupils should understand and be able to compute simple and compound interest and should be taught the importance of problems in connection with saving and borrowing in a business-like way. Special problems such as postal savings' banks; liberty bonds; finding the days between certain dates; and buying on the instalment plan are important problems. Some problems should be presented concerning home and country life, such as household management, food values, and adaptation of recipes.

In this grade considerable attention is given to measurements and equations. Board measure, circle measure, similar triangles, and estimating heights may be presented. The use of symbols to represent quantities and simple equations may be taught.

The children should recognize certain surface forms such as quadrilaterals, triangles, circles, and polygons. They should be able to find the area of rectangles, triangles, polygons, and circles.

Projects.—In this grade, a child might open a savings account or buy a share of Building and Loan stock. Abundant opportunities are offered for relating some

feature of measurement problems with manual training or home economics.

Planning a basketball court or a baseball diamond or a football field makes a good project for boys in the seventh and eighth grades.

Measuring Results.—By the end of the seventh year the children should be able to meet the standard requirements of the Courtis research tests and also the Stone tests for reasoning ability and should be able to compute simple and compound interest for any ordinary problem. They should also have a good knowledge of the surface measurements.

Grade Eight.—(1) A very brief review of fractions, decimals, and percentage should be given at the beginning of the term. The work of the year should be given to the further applications of the fundamental principles which have been studied in previous grades. (2) An understanding of private business. Topics—keeping a bank account, borrowing money, checks, deposits, balances, notes, discounts, wages and overtime, commission and bonuses, stocks, bonds, dividends and rates. (3) Public business, taxes, assessment, levying water rates, assessed valuation, problem in public finance, majority and plurality, practice in large businesses, rational drafts, etc. (4) Square and cube of numbers, exact root by factoring, square root, ratio, and proportion. (5) Problems relative to home and farm, family budget in percents, adapting recipes, balanced rations in food. (6) Equations and their application.

Methods.—We need to remember that children in the

seventh and eighth grades are at the beginning of adolescence, and the dominant characteristics enumerated in a previous chapter should be taken into account in connection with the matter of employment for these grades. Here the children are fond of experimenting, and the tendency to imitate is capable of wide use. Moreover, competition with definite rules is one of the outstanding characteristics of children. We now expect them to acquire more accuracy in their problems. A wise teacher will make use of the developing group instinct in connection with this and other grammar-grade studies.

Projects.—In these upper grades the problem and project method should be used very largely. The curiosity of the child should be utilized by allowing him to investigate general situations in banking, paying taxes, and in fire and life insurance.

Problems in arithmetic involved in the city, state, or national elections in which such terms as "plurality" and "majority" are used need to be presented. How our town and county gets and spends its money, and how our school district gets and spends its money are interesting projects. How to finance a class paper or a school annual or the football or basketball season are also good projects. Financing a school picnic and making a home budget also furnish good material for projects.

Measuring Results.—When the child completes the eighth grade, he should have completely automatized the fundamental processes at the rate indicated by the Courtis standard tests and the Stone tests for reasoning ability. He should be able to understand readily and use numbers

in connection with the fundamental home and community activities. Some considerable ability to apply the mathematical problems involved in buying and selling and exchanging products should also be expected at the close of the elementary school period.

PROBLEMS

1. Discuss the relative amount of oral and written work which should be employed by the various grades.
2. What parts of arithmetic are actually necessary as good equipment for the ordinary citizen?
3. How much algebra should be taught in the elementary school?
4. Give problems which may readily be correlated with some problem in geography, manual training, or home economics.
5. Keep an accurate account of the use of arithmetical knowledge for a day in your life outside of school.
6. Tell about all the work done by a banker.
7. What does a county treasurer do?
8. Find out how a city or school votes and pays for bonds.
9. Get a life insurance policy and read it to discover how many arithmetic problems may be found in connection with it.

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CHAPTER XI

GEOGRAPHY

History.—The first geographical theory to affect the western world was expressed by the Greeks. This early theory held that the earth was flat and bounded by an ocean river. This was the commonly accepted theory in the time of Homer. It is said that Thales of Miletus was the first to propose the idea of a spherical world. This idea was further expounded in 580 B. C. by his famous disciple, Anaximander, who claimed that the earth was a solid body, hanging free in the sphere of the heavens. Pythagoras divided the earth into parallel zones and Hecataeus divided the earth into two continents, north and south. It remained for the great Aristotle to advance the scientific arguments for the sphericity of the earth. They are as follows: all matter tends to fall toward a common center; only a sphere could throw a circular shadow on the moon during an eclipse; the horizon shifts; new constellations appear; falling stars disappear. Aristotle also discovered many geographical facts, such as causes for the formation of deltas, coast erosion, and dependence of plants and animals on their physical surroundings. In his speculations he proposed a theory for the variation of climate, latitude, and seasons. He also

speculated on the difference in character of the races of mankind in different climates.

The Romans added nothing to geographical knowledge, while the middle ages, because of a literal interpretation of the Bible, reverted to the geography of Homer. The Renaissance brought in again the Grecian language and literature; therefore, the theory that the earth was a sphere came up for discussion.

Marco Polo in the early part of the fifteenth century propounded a theory in connection with trade routes. However, complete proof of the earth's rotundity was finally established by the voyage of the great Magellan, who circumnavigated the globe in 1519.

In 1544 Sebastian Münster, who was a follower of Strabo, described the world according to its political divisions, and separated mathematical and political geography.

Nathaniel Carpenter in 1625 made the distinction between political and physical geography.

The study of geography since 1600 has gone through three more or less distinct periods. In the first period geography consisted in the study of charts for the purpose of locating land and water. All of these early geographies included a considerable body of descriptive material concerning typical land and water forms. In addition to these descriptions there was some account of plants, animals, and the races of men. For want of a better term this period of geography may be called "book and place" geography. It was the prevailing type until near 1800.

The second period of geography is dominated by physiographical geography, including its human relations. This change was brought about by the influence of Pestalozzianism, 1779-1859. Carl Ritter, who was professor of geography in the University of Berlin, was its chief exponent. He was ably aided in this work by Alexander von Humboldt, 1769-1859. Some of the fundamental principles of Ritter's theory and method may be enumerated as follows: (1) Physiography is the real basis of geography; (2) the earth is the arena for the development of human life and history; (3) man and his education are the center of interest in geography and all other factors cluster around his destiny; (4) earth-forms do not come by accident, they are the result of an all-wise plan; (5) the country affects the life of the people; (6) God and his laws are behind the development of the earth as the home for men; (7) geography as a science has for its problems the discovery of these laws of the earth's evolution and the proper appropriation of the earth's resources for the greatest possible development of the human race.

With these principles as a working basis geography is no longer a body of unrelated facts, but it becomes at once a fund of live material which includes the whole history of the development of the human race, of nature, and of man in interaction with them. These, according to Ritter, are inseparable. Ritter does not, therefore attempt to separate history and geography. That European countries in general do not separate the teaching of history and geography is an interesting fact.

Following as part of the Pestalozzian movement, this

notion of geography, as expounded by Ritter, spread throughout Europe and came to America. In America, under the influence of Arnold Guyot, who was a professor of geology in Princeton, and Colonel Parker, who had been a student in the University of Berlin, and who was for many years a great force in the Cook County Normal School, the Pestalozzian geography was disseminated. One other important factor in this movement was the teaching of Pestalozzian geography in the Oswego Normal School. In time this type of geography came to control completely the teaching of geography in the United States. As a matter of fact, in a very large measure this form of geography is still the major factor in the teaching of this subject.

The third period may be denominated industrial and economic geography, with social implications. This form of geography has been described by John Dewey as follows: "I should say that geography has to do with all those aspects of social life which are concerned with the interaction of the life of man and nature; or, that it has to do with the world considered as the scene of social interaction. . . ." And again he says: "The four stages of geography referred to above, namely, mathematical, physical, political, and commercial, represent then four increasing stages of abstraction in discussing the mutual relation of human life and nature. The beginning must be the commercial geography. I mean by this, that the essence of any geographical fact is the consciousness of two persons, or two groups of persons who are at once separated and connected by the physical environment

and that the interest is in seeing how these people are at once kept apart and brought together in their actions by the instrumentality of this physical environment. The ultimate significance of lake, river, mountain, and plain is not physical but social. It is the part which it plays in modifying and functioning human relationship. This evidently involves an extension of the term commercial." The historical account is taken primarily from Phillips, "The Development of Methods in Teaching Modern Elementary Geography." *

Among the early text-books may be mentioned the Morse "American Geography," first published in 1789. Later this work was revised and enlarged under the title of American Universal Geography. It contained about 1250 pages. There were several editions of the book. The earliest rival of Morse's book was a small text published by Nathaniel Dwight in 1785. Another, the Monitor's "Instructor," published in 1804, is an interesting book because it contains numerous examples of geography told in poetry. Peter Parley's "Method of Telling about Geography" was first published in 1829 and was reprinted several times. The Woodbridge and Willard "Universal Geography" was published in 1824. It was for advanced students only.

William C. Woodbridge, 1794-1845, published the "System of Modern Geography" in 1833. In 1853 it was revised in collaboration with Mrs. Willard. He had just returned from a visit from Europe, where he had visited Pestalozzi in Switzerland, and had also studied a number

* *Elementary School Teacher,* Vol. 10, pp. 439, 501-515.

of Pestalozzian schools. The book reflects very definitely his interpretation of the Pestalozzian method.

Attention has already been called to Ritter and Guyot. Guyot came to this country in 1848 and settled in Cambridge, Massachusetts. He had been one of Ritter's best students. In his book "The Earth and Man," published in 1849, we have his interpretation of Pestalozzianism after the influence of Ritter.

The Frye Geography also shows the Pestalozzian influence. This may be readily understood, as Alexander Frye had been one of Colonel Parker's pupils. The McMurry "Special Methods in Geography" shows some of the same trend with leanings to economic geography. One has to give only casual attention to the Frye series, the Rand-McNally series, the Dodge series, the Parkins and McMurry series, and the Natural series to see how they have appropriated the principles and methods of Ritter, Guyot, and Parker. Indeed, it may be said that all of the modern geographies are emphasizing the same principles, with some emphasis on the economic aspects of life.

One other development in modern geography, which has generally been called regional geography, may be noted. The most direct attempt to teach by this plan is to be found in the Atwood series of geographies.

Objectives.—It is not altogether easy to state objectives which cover adequately the aims of subject matter in geography. We have not been able to formulate a set of principles on which to determine minimum essentials in geography. We do not know positively what subjects to include, or in what grades to attempt to teach the im-

portant facts and principles which ought to be known by every good citizen.

The following objectives may be stated tentatively:

1. To emphasize the application of geography to the immediate problems of life: to show *how* men live, *what* they do, and, so far as is practicable, *why* they live and work as they do in different environments in different parts of the world.

2. To give the student a knowledge of the location and character of the leading surface features of the earth (continents, oceans, plains, rivers, etc.,) not as isolated facts but in their various relationships to human activity.

3. To give a sympathetic understanding (elementary) of the conditions and people of other countries: to help the student to get the viewpoint of foreign peoples, and to become a citizen of the world.

4. To show the dependence of man on earth conditions, and earth resources, and the economic inter-dependence of the people of different countries.

5. To give a working knowledge of how to secure geographic information through the interpretation of maps, of pictures, of museums, of outdoor, and graphic materials.

6. To inculcate the habit of applying geographic principles, whenever practicable, in the interpretation of current events and to lay a foundation for related work in commercial geography, history, economics, etc., in the high school.

These objectives will be found to be in very close accord with three of the general objectives which have been

stated for the elementary school in the opening chapter of this book. These are: first, the child should be helped to realize his place in the democracy where everybody should know how to work and be willing to work. He should see that his place is not only one in a nation of working people, but one in a world-democracy where there are many inter-relationships and there is much inter-dependence. He will observe that many hands have labored to clothe him, the hands of his own people and those of other lands. It will be called to his attention that widely-separated regions, with essentially different groups of laboring people, have coöperated to produce his food. He will learn that many fields await his labor in order that future generations may enjoy the comforts which he has enjoyed.

In the second place, the course in geography should furnish a motive or an interest that is real and vital for the study of geographic problems in spare moments, and thus train for the best use of leisure time. The reading of travel stories or journey geographical stories should become a recreation, as a result of good geography teaching. Furthermore, the child should become capable of appreciating and enjoying the travelogues at the "movies" and in such magazines as the *National Geographic Magazine*.

In the third place, in the realization of objectives in geography the child should be trained to appreciate his marvelous inheritance which comes as a result of the centuries of race experience. He should come to understand in some measure the great moral and spiritual

values which have been achieved by the race, and through these he should have a more sympathetic understanding of the conditions and peoples of other countries.

Course of Study.—As we have already indicated in our statement of objectives, it is not possible to outline a course of study on any scientific basis. Consequently any statement of topics or problems will be open to criticism and debate. The outline of topics herewith presented is based on the practice in a number of typical cities and states. The courses of study of St. Louis, Detroit, and Cleveland, and of Illinois, Ohio, Indiana, Michigan, and Missouri have been used freely.

Grades One, Two, and Three.—Geography in the first three grades should be largely observational. The attention of the reader is directed to the outline on Nature Study in another chapter for important material in these grades. Every effort should be made to show the child his true relation to his immediate surroundings. Direction over the child's outside experiences, journeys to see things he knows about, and observation of the weather, the barometer, and the thermometer are good devices to demonstrate his relationship to some facts of geography. Carl Ritter observed: "The study of our own district is the direct key to the understanding of the forms and phenomena of foreign lands." Branom says: * "It would be a tedious and difficult beginning for both teacher and pupil, if the child at the beginning of the formal geography had no conception of geography materials." Trips should be made to all kinds of interesting

* "Teaching of Geography," p. 76.

places—especially those where things which the child uses are manufactured or grown—such as the farm, woolen or cotton mills, carpenters' shops, shoe factories, gardens, automobile and toy factories, saw mills, packing houses, rivers, mines, forests, and any places which are available in the community where a child may observe how things are accomplished. Branom says: * "There are many ways to make the work very interesting for the child. A study may be made of one of the child's garments, as one made of cotton. The cotton bolls may be secured and the seed extracted, thus showing the difference between the raw and finished product; also, the difficulty of the manufacturing of cotton goods before the invention of the cotton gin may be discussed. If the raw material is not available, pictures may be used."

There are at least seven principal topics which may be studied experimentally in connection with home geography. They are as follows: †

1. *Food Products and Occupations Connected with Them.*—Trips may be made to local farms in the spring and fall, and especially after rains, winds and frosts. Nurseries may also be visited. Different methods of storing foods, buying processes, canning processes, and other methods used in the immediate locality should be observed.

It might be well to follow some of the different products to the shipping points. A catalogue may be made of all grains, vegetables, flowers, fruits, and weeds to be

* *Ibid.*, p. 80.
† McMurry, "Method in Geography," pp. 21-29.

found in several miles. Visits to different repair shops for farm tools may also be made. A study may be made of the different animals, both domestic and wild, within the region of the child's knowledge. A collection of insects might be interesting. Visit bakeries, meat markets, flour mills, and various other places where food is prepared or sold.

2. *Building Material and Its Relation to Trades.*—A visit to a nearby forest and a cataloging of all trees of the forest will be of value. Visits to stone quarries and brick kilns, and investigations of soft and hard wood, of varieties of stone, sand, lime, iron, glass, tin, lead, slate, paper, paint, and any other building material, will also be instructive. An interesting study may also be made of the tools used in handling the different materials. Find out definitely just what connection each material has with the child's experience.

3. *Clothing Material Used, Manufacturing.*—Study raw material such as wool, hides, and furs. Further study may be made of the animals which produce these raw materials. Also encourage children to talk of experiences they have had with looms, carpet weaving, or spindle wheels, and to tell stories their grandparents have told them, showing the development of the industry. If there are woolen and cotton mills, shoe shops, tanneries and various other industries in the neighborhood, they should be visited. Such other articles as silk, linen, straw, and rubber might be discussed. It would also be interesting to the children to enumerate the different uses of each material. A short study of the objects of the

different business houses may also be made in this connection.

4. *Local Commerce, Roads, Bridges, and Railroads.*—Greater stress should be placed on local commerce than on foreign commerce, as the child knows something about the trade which the farmer carries on with the merchant. Study bridges, their location and the materials of construction. The largest stream in the community should be visited. Have the child note from the nature of the roads of the community why they are in the condition they are, and, if in bad condition, how they may be bettered. Study the materials used in road building. Point out the connection between automobiles, trucks and good roads. Elaborate the function of the railroad or railroads leading into the town or city. Maps of roads and railroads may be drawn, or built on a sand table. If there are water bodies in the vicinity, make a study of ships and what they haul. Something may also be said of the use of aeroplanes.

5. *Local Surface Features.*—Observe shallows, falls, rapids, deep places, water gaps, ridges, watersheds, sandbars, bluffs, bottom lands, islands, lakes, peninsulas, bays, old channels, and high and low water marks. Observe the better crops and the heavier vegetation of bottoms; also show what makes it undesirable. Study rock formations, different kinds of slopes, and vegetation on different slopes and in caves.

6. *Town and County Government.*—The child knows very little of government except the government of the home or school. Also he may know what the police

force is for and a few of the public officers with whom he comes in contact. He has also probably had some experience with different kinds of societies and their government.

7. *Climate and Seasons.*—Keep a daily record of the weather as to temperature, rainfall, snow, hail or other precipitations, and of the direction of the wind, and cloudiness. Note the appearance of the sun in regard to weather. Observe the position of the sun and moon in different seasons. Watch the changing seasons, and the length of days and nights.

McMurry proposes * the following list of possible excursions for the primary grades:

1. House-building.—Materials, trades, tools.
2. Gardens.—In spring and fall. Tools, vegetables.
3. Nursery.—Fruit and shade trees, grafting.
4. Feed-mill.—Corn-sheller.
5. Blacksmith and wagon-maker.
6. Tinner.—Soldering, tools, machines.
7. Grocery store.—Variety of home and foreign products.
8. Shoemaker.—Tools, kinds of leather.
9. Cupola of schoolhouse. Slopes, towns, fields, etc.
10. Miller's Park.—Trees, wild animals, creek.
11. Planing-mill.—Machines, processes, products.
12. Court-house.—Records, court-room.
13. Grain elevator.—Belts, pockets, bins, chutes.
14. Cooper shop.—Hoop poles, staves, tools.
15. Wagon-shop.—Wood work, iron work.
16. Foundry.—Molds, filling the molds.
17. Hothouse.—Construction, heating, plants.
18. Waterworks.—Engine, pipes, tower.
19. Carpet-weaving.—Threads, shuttle, frame.
20. Printing-office.—Setting type, printing-machine.
21. A bakery.—Kneading, the oven.

* *Ibid.*, pp. 29-44.

22. A stone quarry.—Drilling, blasting, hauling.
23. Bridges.—Wagon bridge and railroad bridge.
24. Soldiers' monument.—Park, history.
25. Machine-shops.—Engines, cars.
26. Flour-mill.—Water-power or steam-power.
27. Brick-yard.—Making bricks, the kiln.
28. Canning-factory.—Tomatoes, corn.
29. A natural forest.—Kinds of trees, location.
30. Gasworks.—Coke, furnaces, tank.
31. A dairy.—Churn, cheese-making.
32. Furniture factory.—Materials, machines.
33. China store.—Kinds of ware.
34. Tannery.—Vats, bark.
35. Woolen-mill.—Washing and picking, carding, spinning, weaving.
36. Sawmill.—Logs, saws, stacking.
37. A windmill.—Pumping water.
38. A hardware store.—Farming machinery.
39. A bluff or hill.—Watershed, slopes.
40. Stream.—Banks, floods, erosion.
41. Shoe-factory.—Division of labor, machines.
42. The lake-shore or seashore.
43. A fruit store.—Sources from which fruits are obtained.
44. Visit to a schooner or steamer.—Cargo, voyage, sailors.

In connection with the general features of the work in primary geography, Sutherland says: * "Observational work should not cease at any stated time, but should be carried on throughout the school course. But the first three years are especially devoted to observational work, because sense-perception is active and sense-impression necessary to the child's development: because at this age, being unable to read helpful science material, the child must learn through direct contact with nature; and because a world, new and wonderful to childhood, is furnishing constant stimuli to responsive centers. It is,

* "Teaching of Geography," p. 41.

therefore, the immediate function of school and teacher to bring child and nature into advantageous relationship so that sense impressions may be vivid and lasting."

Projects.—No matter what work is done in geography in the first three grades, some projects may be undertaken in which in a rural school all of the three grades might participate. In grade schools there is no particular point to the order proposed.

Grade one. Construct an Eskimo home.

The materials for this project consist of cotton to represent snow, and cardboard for the construction of the home and for the construction of such simple implements as may be desired. The work is carried out by the children, who get suggestions from the stories which they read and from the teacher. Such a project will appeal to the children, because it involves construction work and play, and it also deals with what children are interested in —the lives and homes of other children.

Grade two. Dressing an Arabian doll.

Two dolls may be dressed—one to represent the father and the other the mother of an Arabian family. Use the sand table to represent the desert and make an oasis. Pitch a tent near the oasis. If desired, the pictures of camels may be cut from magazines. Let the children bring materials from home and do the work of dressing the dolls themselves. If the children are encouraged to refer to stories they have read and pictures they have seen and are permitted to criticize the work, and each one to try out his own ideas, the project will be a valuable lesson in Arabian life and manners of dress.

Grade three. Make a bird book.

Let each child make a book. Make a list of the birds common to the community and get pictures of each. Pictures may be obtained from magazines and from firms which issue advertising charts with pictures of birds. Describe the birds as to size, color, and food they eat, and note those which sing all the year and those which sing only through the summer months. A great deal will be learned about birds, and a love for them will be developed through a project such as this.

Measuring Results.—At the present time there are no objective standards or standardized tests by which we may measure progress in primary geography. By the end of the third year children should have well-organized knowledge of all the phases of geography which may be secured in their home environment. This should include industries, land and water forms, chief products, etc.

Grade Four.—In grade four it is the common practice to provide children with an elementary text in geography. The same text is ordinarily used in grades four and five. Although there is considerable debate as to the advisability of treating geography deductively in this grade, it is quite a common practice to begin with the study of the world as a whole. A brief study is made of the form of the earth, how it is lighted, what surrounds it, and something of its surface. The school globe, journey geography, steamship and railway advertisements and pictures are useful in this connection.

Children should be able to name the hemispheres, con-

tinents, and oceans and give the relative size and position of each. Comparative geography stories are interesting in this connection, also the "Seven Little Sisters" and "Robinson Crusoe." The rotation of the earth can be illustrated by a lighted lamp and a globe. Some attention should be given to the distribution of heat in the different zones. The products of various kinds of animals and vegetables, grains, etc., should be located in a general way in the different zones where they are to be found. Some brief account of the races of men, their distribution and progress, may be studied profitably. A very simple account of latitude and longitude, and some study of the industries of the different zones may be taken up if time permits. Some prefer to begin the study of geography with home situations and extend the study to include the county and the state. If this is the plan, then it will be necessary to prepare an outline for the study of the industries, the people, the products, and the special features of the state.

Projects.—The fishing industry.

This is a project of the type which excites the curiosity and speculation of the children. It involves the use of maps, pictures, and reference books, and may include both oral and written reports. A number of problems arise of which the most important are: What kinds of fish and other life of the sea are used by the people as food? What are their food values? Where and how are fish caught? Why are these particular regions favorable to fishing? How are these various sea foods prepared for

market? Besides learning geography from this project, the child also learns the value of the ocean as a source of food supply.

Measuring Results.—It is as difficult to measure results for this grade as for the preceding one. However, we do have one or two geographical scales which may be used with profit. Though it is far from ideal, the Hahn-Lackey is possibly the best.

GRADE FIVE.—North America is very generally used as the topic of study for the fifth grade. The study should begin with its location. Some historic journeys such as Drake's voyage or Columbus' discovery, or Peary at the north pole make a good introduction. A general study should be made of the size, drainage, soil, surface, peoples and other geographical features of the different countries and continents.

The United States should be studied in detail by groups of states. The principal geographical features of each section should be presented in an interesting fashion. The people, rather than the trade and industry themselves, should be made the basis for the study of industry and trade. Here may be introduced several large type studies such as the Erie Canal, which has been well outlined by McMurry in his "Teaching by Projects." * Another large topic is well organized and outlined by Professor McMurry in the same book.† Important cities in the country should be studied from the standpoint of their origin and development. In New England, account

* Pp. 103-120.
† *Ibid.*, pp. 189-215.

for Boston's prominence; in the Middle Atlantic States, New York; in the Middle States, Chicago and St. Louis; in the West, Denver and San Francisco; and in the South, New Orleans.

After the United States has been studied, Canada and New Mexico should be studied in much the same manner. However, it is necessary to point out the differences between the people in the United States and those in Mexico, and the similarities between those in the United States and those in Canada.

The work in geography should correlate with the history of this grade. The account of the early settlements in these countries will make very interesting collateral material.

Projects.—The following are good projects: *

Wheat

A. Inter-dependence.
   1. City: Manufacture, Distribution, Consumption.
   2. Country: Production, Preparation for market, Disposition. Relating city and country: Transportation.

B. City end of the study of wheat.
   1. Uses. Have children enumerate uses of wheat products.
   2. Sources of the wheat products of the home. Made in the home. Secured from the bakery.
   3. Making of wheat products.
   4. Securing the flour, (a) the family; (b) the baker; (c) the wholesaler.
   5. Manufacturing the flour.

C. Country end of the study of wheat.
   1. Source of the raw material, wheat.
   2. Transportation of the wheat to the mill, (a) railroad, (b) waterway, (c) wagon road.

* Branom, "The Project Method in Education," p. 235.

3. Production of wheat.
4. Harvesting and thrashing.
5. Disposition of the wheat.

If the study is being made with rural pupils, the teacher will consider the country end of the study of wheat for motivation material; if the study is being made with urban children, the city end of the industry will suggest the point of departure.

The lumber industry. Let the pupils bring to class samples of the various kinds of lumber with which they are familiar. These samples may then be discussed as to the sections of the country in which they were produced, conditions favoring the growth of certain kinds of trees, the method of preparing lumber for the market, transportation to the milling and manufacturing centers, the various uses of the different kinds of lumber, and the value of the lumber industry in the United States. This project will give an insight into the importance of the lumber industry, and the many things for which lumber is used.

Measuring Results.—By the end of the fifth year a pupil will be ready to get a larger vision of the world. This study should, therefore, fit him for world geography. At first the child has been considering his own needs and wants and the characteristic conditions under which home products about him have been produced. His elementary acquaintance with the different parts of the earth has prepared him for the advanced step of studying regional units. In the first of his study, the emphasis was on immediate environment; in the second, the emphasis is

given to the consideration of those problems in which remote areas serve the local community, and interest should have been aroused in widely distributed areas. A third viewpoint in connection with world geography demands the use of local environments as the basis for an appreciation of the peoples in widely distributed zones. The Hahn-Lackey scale may be applied in the fifth grade also.

Grade Six.—In the sixth grade, Europe and Asia will be studied on the same general plan as was outlined for the study of North America.

Projects.—1. The Rhine river with its fortified cities constitutes an important project for this grade. This becomes a doubly interesting project since the World War. In the project compare the Rhine river with the Hudson.

2. Berlin may be studied in comparison with Chicago or New Orleans.

3. *Geographic Magazine* project.

This project may run throughout the year and will prove both valuable and interesting if properly conducted. First, decide whether anything is wanted in the magazine other than the main theme which centers around a little boy's trip around the world. As a suggestion, other things which may be included are a page of school notes, a few class notes, and perhaps a few jokes. This decided upon, organize the class, make provision for art editors, literary editors, and reporters so that each child has something to do. The work consists of pictures and descriptions, which may be taken from magazines, of the people

and the lands the little boy comes in contact with in his trip around the world. The magazine is published monthly and may be written by hand or typewritten. All the work is read and corrected by the editors before it is published. The children should change jobs once a month so as to get the experience of all sides of the project. If desired, this work may be carried on with the coöperation of all the geography classes. This will make a larger and better magazine. This project is closely correlated with English and composition, giving drill in each.

Measuring Results.—At the close of the sixth year, pupils should have a reasonable knowledge of the important commercial centers of continental Europe, such as Paris, Bordeaux, Hamburg, and Berlin. The Hahn-Lackey scale may be used in this grade also.

Grade Seven.—In the seventh year South America, Central America, Africa, and Australia, should be studied in the same manner as the countries were studied in the fifth and sixth grades. South America should be studied in comparison with North America, using the rivers, lakes, cities, industries, and commercial centers as topics for comparison.

Projects.—1. The State Fair.

Have the pupils collect products, pictures of industries, and diagrams of any state projects under way and arrange them in the form of an exhibit. Assign each child to some particular section of the exhibit and let him familiarize himself thoroughly with it. Of course he should have a knowledge of all of the products, but it is

necessary that he know his section of the work well. When the exhibit and the information about it are as complete as possible, invite the rest of the school, or, better still, invite the community to see it. The children are in full charge and explain the various products, pictures, and diagrams collected. The child will learn a great deal of state geography through this project, because it appeals to his collective instinct and also it satisfies a social ambition. He is collecting information which is not only useful to himself, but he is able to pass valuable information to others.

2. The Panama Canal should be made a big project for this year.

3. The gold mines in Africa may be used for a project.

Measuring Results.—At the conclusion of the seventh year, the child should be able to locate the continents, oceans, and different countries of the world, and be able to locate and point out the significance of some of the great lakes, gulfs, deserts, forests, rivers, canals, and cities of the world. The principal industries of each country, the characteristics of the people, their form of government and educational systems should be familiar to children of this grade. The use of the Hahn-Lackey scale may be continued.

Grade Eight.—In grade eight the remainder of the world should be studied, starting with Europe as a center of influence. The British Empire should be made the basis of the study, and in a large way the great industries of the world should be made the subjects of extensive

study. Such topics as the steel industry, the oil industry, the sugar, coffee, cotton, wool, dairying industries, the coal business, wheat, corn, hogs and cattle, and transportation systems may be considered. All of these topics should be studied in their relation to man rather than as a mere topical or abstract study from the fact or the book standpoint. It is common to require an intensive study of the home state of the pupil in the latter part of the eighth year.

Projects.—A good project for this grade is a study of the Muscle Shoals. This has been well outlined by Dr. Charles McMurry, of Peabody College, in a monograph.

The conservation of the forests in America would make an interesting study. The colonial possessions of the British Empire, starting with our next-door neighbor, Canada, could be made an interesting problem.

Measuring Results.—At the close of the eighth year the pupils should have a world viewpoint of industries, governments, and human values. They should be able to reach the standards proposed by the Hahn-Lackey geography scales.

PROBLEMS

1. How may the teachers of geography secure a satisfactory background for both method and content?
2. Make a study of new text-books to see which ones make the human being the central interest.
3. Make a study of text-books on the basis of treating the earth's surface essentially by regions.
4. Choose and make a selection of suitable illustrative material, such as pictures, slides, etc.
5. Is it possible to teach geography wholly by the project method?

6. Plan some geography lessons which correlate well with history, drawing, and manual training.
7. How much emphasis should be given to map study?
8. How may map study technique be developed?

REFERENCES

Branom: *The Teaching of Geography.*
Dodge, Kirchwey: *The Teaching of Geography in the Elementary Schools.*
McMurry: *Special Methods in Geography.*
Smith: *Teaching of Geography by Problems.*
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CHAPTER XII

NATURE STUDY AND AGRICULTURE

NATURE STUDY

History.—The subject matter of nature study and agriculture has been added to the elementary school curriculum only in comparatively recent time. The nature study movement came to America in connection with the development of Pestalozzianism. It will be remembered that in all Pestalozzi's experiments with children of the elementary status he took them out into the woods and fields to study nature in her real conditions. Consequently when the Pestalozzian movement was introduced into the normal schools of the United States, this subject came in for study and received large emphasis under the title of "Object and Objective Instruction." However, it remained for the followers of Herbart to put the movement on its feet. In the latter part of the eighties and the early nineties, when the Herbartian movement swept over the United States, nature study came in for its share of development. Several of the Herbartians prepared outlines and wrote text-books on nature study. Among those contributing to the movement may be mentioned De Garmo, Vanlieu, Lange, and the two McMurrys, especially Charles, who wrote a book on "Method and Subject Matter for Nature Study"

and included a very comprehensive treatment of the same topic in his two volumes "The Course of Study in Eight Grades."

Since the contribution of McMurry and others of Herbartian school there have been written two or three books which have made essential contributions to the movement, notably Holtz, "Nature Study and Life"; Comstock, "Handbook of Nature"; and Scott, "Nature Study and the Child." The nature study movement contributed very largely to the enrichment of elementary geography, especially for the first four grades. Indeed, in a large number of courses of study the elementary geography has completely absorbed what might otherwise be called nature study. Considerable evidence of this fact may be noted by looking over the topics for the primary grades in the chapter on geography in this book. Nature study is, despite all discussion and perversion, a study of nature. It consists of simple truthful observations that may be finally put together in such fashion as will give the child an understanding of his environment.

Objectives.—The main objectives for nature study may be stated as follows:

1. It should perfect the relation between the child and his surroundings or adapt the child to his environment.

2. It should teach the child such facts and principles of nature as will make him more efficient in the community and also give the natural approach to personal hygiene.

3. The study should inspire in children such a com-

panionship with nature as will lead to high ideals and moral integrity.

4. It should enable him to appreciate the marvelous harmony and beauty revealed everywhere in nature.

5. The child who knows nature may come to find in the most commonplace environment elements of the greatest significance.

Obviously from the statement of these objectives we see that nature study has important bearings on at least four of the larger objectives which were stated for elementary education—namely, it gives some subject matter for health and physical control, some training for good citizenship, some material for gratification in leisure moments, and some basis for the appreciation of moral values.

Course of Study.—Grades One to Four.—The study of nature in the first four grades is obviously not one from which to secure accurate scientific information. However, no data of any kind should be observed and learned which in any way violates any fundamental principle of science. In these grades the nature study should provide a large fund of material for sense perception, a knowledge of which should give the child an interest in nature and a sympathy for both plants and animals. The course should begin with the common things in the home and garden, fields and streets of the child's neighborhood. Subject matter should be presented quite informally. The work ought to follow the seasons, and should be extensive in character rather than intensive.

In the primary grades it should occur not more than

two or three times a week in fifteen-minute periods. Following the suggestion that the seasons should furnish the basis for nature study work, when school opens in the fall, children should be taught to observe what man, plants, and animals do because of the changing season. Some plants are killed by the frost; some shed their leaves and remain dormant through the winter. A large number of insects such as flies, and grasshoppers die with the approach of cold weather. Some others hibernate or go into the ground; frogs and snakes are examples of this class. Some animals more or less domesticated by man are kept through the winter to the spring season. Large numbers of birds migrate, but some remain. Blackbirds, robins, and bluebirds are types of migrating birds, whereas the jay, crow, and hawk remain. Man makes elaborate preparation for winter by securing fuel for fire, making the house suitable for keeping out the cold, and preparing and storing foods of various kinds.

Almost any number of problems and projects might be adapted from these suggestions. As studies for the winter season, attention might be bestowed upon the trees which remain in foliage; the birds and animals which have not migrated; and upon the special industries of man which are going in winter, such as mining, manufacturing, and transportation. In the spring, the return of nature to a more active sort of life should be made the basis for the study. The appearance of grass, weeds, flowers, and trees and the foliage, efflorescence and fruitage should be made the basis for one of the big problems. The return of the birds, nesting, and care of their young furnishes a topic

for observation and study. Planting, sowing, and harvesting should furnish abundant material for profitable investigations. The towns are not quite so fruitful as the country. However, there are gardens, trees, shrubs, and parks which may furnish a good fund of material.

In the earlier grades children should be allowed to make pets of birds, rabbits, squirrels, cats, dogs, and chickens, so that they may learn how to care for them. In this, we appeal to the instinct for ownership and the larger value of moral worth which is involved in the care. In connection with hygiene and sanitation, children need to have their attention called to the enemies of man, such as flies, mosquitoes, rats, mice, and the various types of weeds, such as dandelions, dock, ragweed, and plantain.

In the fourth grade, unless the work is superseded by a text-book in geography, the class should make a more intensive study of the plants and animals which are used for food and clothing.

Projects.—Almost any number of good projects might be listed:

1. Make a special study of the cocoon or the frog.
2. Make a bird-book, including the song birds of your community.
3. Make a note-book accounting for the migration of three or four well-known migratory birds.
4. Make a flower box for the window.
5. Make an excursion in the autumn or spring and list all of the insect formations which were observed on the excursion.

6. Make a soil study of your community.

7. Make an excursion to some park, or the zoölogical or botanical gardens and write an account of the excursion.

8. Make a collection of leaves; press, mount, and name the tree, shrub or vine from which each one came.

9. Make a collection of fruits, vegetables, or seeds for the school or county fair.

In connection with these projects it will be observed that there are numerous possibilities for correlation with language work, drawing, and manual training.

AGRICULTURE

History.—The introduction of agriculture into the elementary school was more recent than that of nature study. It is not possible to say exactly when agriculture was added to the elementary school curriculum. However, since 1900, it has been appearing in courses of study prescribed by state boards of education and county superintendents. Professor Robinson says: * "Agriculture as an art has been known from the earliest civilization, but it is only in recent times that it has been considered as a science. Our first work in the teaching of agriculture was designed for colleges and not for grades." However, the author well remembers that Hesiod compiled a work in poetry called "Works and Days," which had to do with agriculture in Greece, and Vergil also wrote some poems of country life called the "Eclogues."

* "Columbia University Contributions to Education," pp. 4-41.

Moreover, Karl the Great compiled all the information which could be got together in his times for a treatise to guide his buccaneering Teutons.

To turn to our own case, the story of agriculture is one of development from college work down into the high school and finally into the elementary grades. "One of the very early proposals to teach agriculture in college was by William Smith in 1751," says Robinson,* "This was termed the chemistry of agriculture and was carried out more or less at Philadelphia Academy, now the University of Pennsylvania. King's College, now Columbia University, mentions Husbandry and Commerce as early as 1754. Dr. Samuel L. Mitchell held the chair of botany and agriculture in 1792. It is interesting to note what he says: 'An attempt is made by the professor, who is a practical farmer, to elucidate and explain the economy of plants, their affinity to animals, and the organization, excitability, stimuli, life diseases, and death of both classes of beings. The physiology of plants is therefore enlarged upon as connected with gardening and farming.' "

One of the very first instances which we have of the introduction of agriculture into a real school situation was the educational experiment which was attempted for elementary and high schools at New Harmony, Indiana, in 1825. Joseph Naef was employed to conduct the experiment. He had been a co-laborer with Pestalozzi, and it was his plan to introduce here the Pestalozzian method of teaching in connection with the work of agriculture and other subjects. The experiment, known as the New

* *Ibid.*, pp. 4-41.

Harmony Movement, was completely socialistic. It was short-lived because of religious intolerance and other impossibilities occasioned by the Utopian dreams of the leaders. Between the years 1827 and 1837 the Oneida Manual Labor Institute introduced courses in carpentry and agriculture. However, no considerable advance was made in the teaching of the subject until after 1862, when the Congress of the United States passed the famous Morrill Act. By this act each state was given thirty thousand acres of land for each member of congress for the establishment of agricultural schools. Later acts, such as the Hatch Act, 1887; the Adams Act, 1906; the Nelson Act, 1907, have added to the original grants. Since 1912 each state in the Union has about eighty thousand dollars annually for the purpose of teaching agriculture. Two other acts have been passed very recently, the Smith-Lever Act in 1913, and the Smith-Hughes Law of 1917. The last act gives state subsidies to high schools which maintain a course in vocational agriculture, vocational home economics, and trades and industries under certain conditions and restrictions which we do not need to enumerate here. Undoubtedly this last act is the most important one of all, because it begins the teaching of agriculture in high school under the direct patronage of the Federal government with the state coöperating.

Objectives.—1. "Probably the chief objective in teaching agriculture in the elementary schools is to teach the children the fundamentals of agriculture, as agronomy, which includes soils and crops; animal husbandry, as ap-

plied to breeding; judging and the care of animals; horticulture, considering plants, trees, and vegetables; farm management; economic handling of crop production; marketing; and good roads." * These fundamentals may be taught by experiments, by observation and investigation, by the study of bulletins and text-books, and by talks by the teacher and expert farmers.

2. Another objective is to heighten the appreciation of agriculture and farm life, to instill a love for the soil, for the care of animals and for the occupation of farming; to impress upon the mind of youth the importance of agriculture and the advantages enjoyed by those who live upon the farm. In this connection, it may be well to observe that on the successful prosecution of agriculture actually depends the continued existence and prosperity of the human race. We need to have called to our attention continually that it is through agriculture that all of us are fed and clothed, and provided with the fundamental material comforts of civilization.

Theodore Roosevelt once said, "If there is one lesson taught by history it is that the permanent greatness of any state must ultimately depend upon the character of its country population. . . . In every great crisis of the past, a peculiar dependence has been placed upon the farming population, and this dependence has hitherto been justified." Since this was written one other striking example of the importance of the products of the farm have been called to our attention by the great World

* Charters, "Teaching of Common Branches," p. 310.

War. Had it not been for our American farmer and his products, together with the willingness of the city people to economize in the use of these fundamental food stuffs, the World War story would have no doubt been a different one.

3. Another objective for the teaching of agriculture in the elementary school is to provide those essential pre-vocational experiences which will enable a boy to select his vocation with intelligence. This bears directly on one of our primary objectives for the elementary school. Moreover, Storm and Davis say,* "The non-vocational agriculture curriculum should contain those materials regarding science and agriculture which should constitute the common knowledge of every well educated citizen of a nation like ours whose greatest and most fundamental industry is farming." The importance of this statement is emphasized when we consider the fact that there are about six million farms in the United States with not less than ten millions of men employed on them. Moreover, the actual rural population of the country is something more than forty millions of people. In addition to this there are about three millions more of laborers who are engaged in the manufacturing of farm products.

The statements above imply that there are two direct values in connection with the pre-vocational work in agriculture which should be realized in the elementary school. On the one hand it should provide the information and the insight for a wise choice, if agriculture is

* "How to Teach Agriculture," p. 7.

selected for a vocation. Of course it is not presumed that all boys who live on farms will choose to follow this vocation. On the other hand it seems that a good deal more of the material which is now thought to be of value to the farmer alone should be understood by all people in order that there may be a proper appreciation of our dependence upon the world of nature and those who cause this world to produce so many of the essential things of life. It ought to contribute in some measure to the better appreciation of the social, economic, and moral issues involved in the problems which are of mutual interest to the consumer and producer.

The Course of Study.—Grades One to Six.—From the first to the sixth grade, agriculture, geography, and nature study should be closely related. Only such phases of agriculture as throw light upon nature study should be taught. Therefore, no special projects are outlined for these grades under the name of agriculture.

Grade Seven.—The seventh grade should be devoted to plant study and correlated topics. The course of study outlined below has been compiled from several state courses relating to elementary agriculture; notably, New Mexico, Colorado, Missouri, and Indiana.

September

1. Study of Plant Classification.
2. Study of Fall Weeds.
3. Study of Potato Plants.
4. Study Parts of a Plant and Make Drawings.
5. Select Seed.
6. Community Crop Survey.

October

1. Collecting Soil Samples.
2. Study of Common Soils.
3. Formation of Soils.
4. How Plants Feed, Grow and Reproduce.
5. Plant Insects.

November

1. Study of Most Important Plants in Locality.
2. Judging Above Plants.
3. Study of Small Grains.
4. Judging Small Grains.

December

1. Examination of Farm Seeds.
2. Physical Properties of Soil.
3. Importance of Humus and Barnyard Manure.
4. Keeping Soils Productive.
5. Crop Rotation.

January

1. Importance of Soil Water.
2. How Soil Water Enter Plants.
3. Rise of Water in Soils.
4. How Soils Can Be Made to Hold More Water.
5. Influence of Drainage.
6. Plant Food Removed by Crops.

February

1. Conditions Essential for Good Plant Growth.
2. Action of Acids on Limestone.
3. Testing Soils for Acids and Alkali.
4. Study of Molds and Other Fungus Diseases.
5. Study of a Seed Catalogue.
6. Method of Raising Vegetables and Flower Seedings in Boxes.

March

1. Planting the Home Garden.
2. Making Out a Seed Order.
3. Testing Seeds.
4. Planting Trees and Shrubs.
5. Pruning and Grafting.

April

1. Forage Crops.
2. Importance of Legumes.
3. Treating Seed Potatoes.
4. Preparation of Seed Bed.
5. Improvements of Home and School Grounds.

May

1. Cultivation.
2. Weed Control.
3. Common Spring Weeds.
4. Transplanting.
5. Study of Few Common Flowers.

Grade Eight.—The eighth grade should be devoted mainly to animal studies and to such correlated material as may be profitably considered in the same connection. The following course of study for the eighth grade has been compiled from a number of state courses.

September

1. Culling the Poultry Flock.
2. Importance of Farm Animals.
3. Kinds of Farm Animals in Community.
4. Study of Pure Bred and Scrub Animals.
5. Value of Milk and Eggs in the Family Diet.

October

1. Study of Poultry Houses.
2. Winter Rations for Poultry.
3. Cost of a Ration.
4. Poultry Records and Accounts.
5. Judging Poultry.

November

1. Study of Animal Grown for Meat.
2. Dairy Types and Breeds.
3. Judging Above Animals.
4. Feeding Standards.
5. The Silo and Silage Crops.

December

1. Testing Milk.
2. Testing Skim Milk and Cream.
3. Keeping Milk Records.
4. Feeding the Boarder Cow.
5. Herd Improvement.
6. Value of Butter and Cheese.

January

1. Common Breeds of Farm Horses.
2. Care and Management of Horses.
3. Unsoundness of Horses.
4. Judging the Age of Horses.
5. Care of Colts.

February

1. Selecting Breeding Fowls.
2. Care and Management of Flock.
3. Control of Lice and Mites.
4. Care of Young Chicks.
5. Incubation.

March

1. Selection and Care of Eggs for Hatching.
2. Candling of Eggs.
3. Grading and Marketing of Eggs.
4. Types and Breeds of Swine.
5. Value and Use of Swine.

April

1. Brooders and Hovers.
2. Growing and Feeding Chicks.
3. Importance of Sanitary Feeding Troughs and Utensils.
4. Fattening Poultry for the Market.

May

1. Farm Management.
2. Good Roads.
3. Social Conditions.

Special Methods.—No other subject of the elementary curriculum affords larger opportunity for making significant correlation and for the use of motor activity in the learning process. Moreover, there is a wide range of experiments which appeal to the fundamental instincts of children. In the collection of seeds, soils, and insects, hunting and fishing, and in the various types of excursions which are necessary, these instincts are immediately brought into play. And, again, there is a large opportunity for discrimination and reflective thinking in the learning processes involved in connection with the varied types of material. The following special methods may be of value:

In the teaching of plants:

1. Make a field trip and collect seeds and plants.
2. Make drawings of the different collection.
3. Study and compare different kinds and varieties.
4. Propagate plants.
5. Make germination tests of seeds.
6. Make a plant survey in the community.

In the teaching of animals:

1. Study the animals found in the community.
2. Locate the different parts of the animals; make drawings.
3. Study of diseases and location of blemishes.
4. Study different types: such as, draft and light, or dairy and beef.
5. Score good and bad types.
6. Study feeding and care of animals.

In the teaching of soils:

1. Collect soils found in the community.
2. Make a trip to railroad-cut and study soil formation.
3. Bring soils to the class room and study them as regarding size, arrangement of particles and moisture content.

In the study of Farm Management:

1. Use farms of the community in studying good and bad methods of farming.
2. Assign topics for class recitation, such as:
   a. The farmer as a business man.
   b. Farm buildings.
3. Make drawings of a model farm.
4. Visit the best farm in the community.
5. Read bulletins from the department of agriculture.

Projects.—In a large measure the whole range of agriculture involves the project method of instruction,—so much so that the teaching of vocational agriculture in high school consists mainly in projects which are to continue throughout the year. It may be observed also that, in connection with the special methods listed above, con-

siderable use may be made of debates, lantern slides, services of county farm agents, local stock shows, county fairs, exhibits, and the state fair. In several of the states it is a common practice to select one or more boys in a county to send to a school connected with the state fair. In other states it is a common practice to have at the state university or at some state agriculture college special short courses for farmer-boys. When the boys have returned, a wise county superintendent, in coöperation with the teachers, will make important use of the information gained.

Special Projects.—In the teaching of project work, one must keep in mind individual differences. It is not wise to lay down one project to be carried out by all members of the class. The following are examples of projects which may be used:

Seventh Grade.

1. Make germinators for testing purposes.
2. Make a seed box and grow plants for transplanting purposes.

Eighth Grade.

1. Pig, poultry, or calf clubs.
2. Keep a road dragged for a half-mile near the pupil's home.

PROBLEMS

1. What can be done for the child who does not seem to have very much interest in nature study?
2. How may a child who is afraid of animals and insects be taught to eradicate his fears?

3. What use may be made of flower and bird charts?
4. What fundamental instincts may be aroused and gratified through nature study?
5. Is it worth while to have short stories or poems learned in connection with plant and animal life?
6. How may agriculture be taught so as to keep boys and girls on the farm?
7. How may the coöperation of parents be secured?
8. How can girls be interested in agriculture?
9. How can a demonstration garden be properly managed during a nine months' school term?
10. Should the elementary school do laboratory work or leave it to be done in the high school?

REFERENCES

Comstock: *Handbook of Nature Study.*

Elementary School Teacher, Volume 10, pp. 270-276.

Holtz: *Nature Study.*

Trafton: *Teaching of Science in the Elementary School.* (A complete outline of nature problems from the first to the eighth grade, inclusive. Altogether the best thing of its kind in print, and should be in the library of every teacher of elementary schools.)

McMurry: *Course of Study in Eight Grades,* Volume 1, pp. 139-190.

Storm and Davis: *How to Teach Agriculture.*

Brinker: *Teaching of Agriculture.*

Davenport: *Efficiency in Education.*

State Courses of Study of the following states: Arkansas, Colorado, Indiana, Kentucky, Missouri, New Mexico, Texas, and West Virginia.

CHAPTER XIII

HISTORY

He who knows nothing of history," says Macauley, "may be likened to a blind man who, passing through a wonderful gallery filled with beautiful pictures, sees none of them." If Macauley is correct, it may be justly claimed that he who knows no history is hopelessly blind to the meaning of the world in which he lives. The child finds himself in a complex and mysterious civilization. He meets daily customs, institutions, ideas, and words whose significance he does not understand. They may be appreciated only by an understanding of what has gone before.

As natural science reveals to him the meaning of the physical phenomena around him, so the study of history should explain to him the social problems that excite his curiosity, wonder, and admiration.

History.—History in some form has been a phase of instruction since the creation of mankind. Even in the remotest antiquities primitive peoples found it necessary to hand down the traditions of the family, tribe or the clan, and the heroic deeds of their warriors, priests, and pioneers were transmitted with great faithfulness. Among primitive peoples it was also customary to communicate to the novitiate, at the time of the tribal initia-

tion, the important information necessary to become a good citizen. In many of these ceremonies, information was imparted with elaborate ceremonies which might include fasting and feasting, and even very cruel and heartless practices were indulged in to impress upon the young man the importance of his duty to the clan in the light of the history of his people. At this time the initiate learned about the spirits and gods who were friendly, and, likewise, he was sworn to eternal hatred for the evil spirits and the animals and men that were his enemies.

Girls were not counted as citizens. Therefore, they were not taught these traditions. Sometimes these important lessons were embodied in poetic form and were memorized as a part of the training of the boy for citizenship. Striking examples of this are the great epic poems such as the "Iliad" and the "Æneid." We know also that, as a part of the preparation for citizenship, the Hebrew boy first became a listener at the important councils of his elders, and later, after such knowledge had been secured, he participated in these discussions, which included the historical foundations for the institutions in which he was to participate. The Athenian boy after the age of fourteen spent nearly all of his time until he became a citizen in listening to and in participating in the discussions of various assemblies.

Before he could become a citizen, the Roman boy learned the twelve tables, which practically embodied all of Roman civilization.

During the middle ages the boy was required to go through the stages of page and esquire before he was al-

lowed to take the vows of knighthood. In these periods he spent approximately fourteen years receiving an elaborate training in the history, traditions, and customs necessary to become a good knight.

However, all history training prior to the opening of the sixteenth century was in a large measure local and provincial. Each nation has been chiefly concerned with its own affairs, giving little attention to the achievements of others. A single exception may be noted in the case of the Romans during the imperial period in which the literature, philosophy, and ideals of the Greeks so completely enveloped the Romans.

Beginning with Luther, problems of history became more than local and national, for he was a student of world literature, world history, and philosophy. Somewhat later, John Amos Comenius outlined a definite course of historical instruction for all grades of children.

Rousseau did not think that the history teaching of his time was of very great value, because, he said, it consisted largely of names, dates, and isolated facts. It was not until after 1800 that the French introduced history for all grades, organized primarily on the cycle plan. The major purpose was to give a Frenchman a fundamental conception of his duties as a Frenchman.

In modern Germany, history was also organized on the cycle plan, with nationalism emphasized for the purpose of making a loyal German.

History in the American schools had almost no place until the latter part of the last century. It is said that prior to 1860 there were but three chairs of history in

American colleges and universities. Previous to 1880 some American history was taught in the upper grades, and some general history in the academies and high schools.

There have been numerous committees appointed by the National Education Association, the American Historical Association, and the Association of Colleges and Secondary Schools, for the purpose of studying the problem in connection with the instruction in history for both elementary and secondary schools. All of these committees have been appointed since 1890.

The report of the Committee of Seven, whose primary purpose was to plan a course of study for high schools, also made recommendations for a course of study in elementary schools. The plan was on the cycle scheme involving world history.

In 1905 the American Historical Association appointed a Committee of Eight, whose report was published in 1909. Undoubtedly this report has greatly influenced courses of history throughout the nation. It recommended a course for the full eight years of the elementary school. Indian life and holidays for the first two grades; heroes of other times for the third grade; historical scenes and persons in American History for the fourth and fifth grades; European background of American History in the sixth grade, and American History in the seventh and eighth grades.

In 1913 a new committee of eight was appointed by the American Historical Association. Its work was interrupted by the war period but in 1919 it published a

preliminary draft of its report. However, this preliminary draft received such criticism that it was thought wise to give the problem further consideration before a final report is made. The detailed report has not yet appeared. The preliminary report gave no distinct outline for historical instruction in the first and second grades. In the third grade, it was recommended that stories of early man and of the pre-Greek world be used. In the fourth grade, stories of Greece and Greek life and of Rome and Roman life were to be made the basis of instruction. In the fifth year the middle ages and the Spanish settlements and conquests in America were recommended. In the sixth year, English colonization with such historical background as will include some of the more important aspects of her controversies with Spain, Holland and France is recommended as the main subject matter. In the seventh grade, American History from 1750 to the present; and in the eighth grade, problems of American Democracy are recommended as good material.

At the present time there are at least two somewhat antagonistic theories as to the basis for the selection of the important phases of subject-matter for instruction in the elementary grades. On the one hand there are those who contend that practically all the work for the elementary school should be centered in United States history or at least in American History. The claim is made that this procedure would be in harmony with the processes of learning as expounded by modern psychology; that we need to begin with the concrete before the complex and

abstract may be understood. Another argument for this theory is that it is our first and important business to learn about our own country.

In the author's opinion, neither of these arguments is very sound or final. As a matter of fact, historical material presented by the right methods of instruction is not necessarily abstract, no matter with what time or people it may deal.

Concerning the second argument it is doubtful if any adequate appreciation of our institutions can be secured without a knowledge of the essential features of European civilization which constituted our immediate historical background. Moreover, it seems that these arguments are, after all, narrow and provincial and are made to appear to the American boy or girl after the fashion of ancient times rather than to the citizen of the new democracy.

The other point of view is that the course of study should begin with primitive man, both in America and elsewhere, and trace his development through the various stages of civilization so that the pupil may understand somewhat, at least, the situation in which the American democracy now finds itself. We are in the midst of a world-situation with all of the experiences of the race as a part of our inheritance, whether we will or not.

The author confesses his sympathy with the latter viewpoint, and the course of study will be organized in large measure in accordance with that plan.

Objectives.—The objectives will be stated somewhat arbitrarily in keeping with the author's view already out-

lined. (1) History should be taught in the elementary schools because it is necessary to the understanding of the background and perspective of our present situation and future progress. It seems that modern methods waste much time and energy and material continually because we do not make use of the experiences of previous peoples. (2) From the dawn of creation to the present time man has been working in laboratory fashion to discover the great laws and principles underlying human welfare and progress. History is a record of this laboratory material; and the principles which we need to know in government, politics, economics, religion, and philosophy are to be found as a result of this experimentation. History should teach us to conserve the great human values which have been discovered by man in his attempts to progress from savagery to civilization. These are expressed in the terms of rights and ownership of property, human liberty, the value of happiness and the actual worthwhileness of a righteous character. (4) As a result of their experiences with historical material, students should learn to think in terms of social problems. (5) One of the most valuable recreations is to be found in reading good historical accounts of typical personal, institutional, and national experiences. (6) History furnishes an elaborate source of material for use in discovering the great moral values as wrought out in war and in peace.

Courses of Study.—Grades One to Five.—The history work of the first five grades can hardly be called

history in any technical sense. It should be the aim of the course to bring the child to some appreciation of the essential factors of his life, his home and his dependence upon the surrounding community, so that he will understand the dependence of each upon the other. From this he will observe some things that have to do with individual responsibility, and the necessity for coöperation may be pointed out.

The work of these grades may be correlated readily with the problems which have already been outlined in Reading, Language, Drawing and Geography. The Baltimore Course of Study presents several most excellent typical outlines for these grades. The one for the first year is as follows:

An Outline by Topics

I. The Home.
  a—The family (members).
  b—Activities in home.
  c—Family pleasures.
  d—Supplying material needs.
    1. Food.
    2. Clothing.
    3. Shelter.
II. Community Activities.
  a—Home Furnishings.
  b—Food.
  c—Clothing.
  d—Other community activities.
III. National Holidays.
  a—Thanksgiving.
  b—Christmas.
  c—St. Valentine's Day.

d—Washington's Birthday.
e—Lincoln's Birthday.
f—Easter.
g—Arbor and Bird Day.
h—May Day.

For the second grade a comparison between our form of life and that of the cave man may be made as follows:

A. Present Day Life.
  1. Food.
  2. Shelter.
  3. Clothing.
B. Primitive Life.
  1. Food.
  2. Shelter.
  3. Clothing.
C. National Holidays.
  1. Same as for previous year.
D. Community and Home relationships.
  1. Protection.
  2. Service.
  3. Pleasure.
  4. Education.
  5. Transportation and communications.

For the third year, local history may be profitably made the basis for the study on some such outline as follows:

First Quarter.

I. Early life in our community.
  A. Immediate neighborhood.
  B. First inhabitants, Indians
    1. Of the plains.
    2. Eskimos.
    3. Of the Southwest.
  C. First settlers in the neighborhood.
  D. Community needs, past and present.

Second Quarter.

II. Jewish Biographies.
  A. How hunters became shepherds.
  B. Stories of Abraham, Moses, David, etc.
III and IV quarters.
  1. State History.
    A. Pioneer days in settlement.
    B. Pioneer soldiers, preachers, statesmen and warriors.
    C. Part played in the Civil War.
    D. The states participating in the World War.
    E. Study of big cities.
    F. Prominent men and women of recent times, such as authors, statesmen, educators, inventors, and promoters of industry.
  2. National Holidays.

In this grade children should be taught to observe appropriately the most important national holidays; Thanksgiving, Fourth of July, Christmas, Washington's Birthday, Armistice Day and others.

In the fourth grade local history in which some study is made of the state, early explorers and pioneers may be continued and the various forms of primitive life may be made the basis for the study.

In connection with geography the excursions to local industries or places of historical interest may be made very interesting and profitable.

In the fifth grade local history including certain interesting stories concerning well known characters in American history such as William Penn, Captain John Smith, Benjamin Franklin, Patrick Henry, Nathan Hale, and Lafayette may be studied.

Another group might include stories of the Northwest

in connection with Daniel Boone, John Severe, and George Rogers Clark; immediately connected with the founding of the new nation, stories of such men as Washington, Jefferson, and Hamilton may be used.

The War of 1812 may be studied using stories of Perry, and Andrew Jackson.

With geography some problems of the new industrial age may be brought in, such as the life of Fulton and the invention of the steamboat. The building of the railroad, with the life of Samuel F. B. Morris; the cotton gin, with the life of Eli Whitney; and the reaper, with the life of McCormick may be made the basis for interesting work.

Interesting sketches may be taken from the lives of the three great statesmen, Webster, Clay, and Calhoun.

A few facts about the Civil War may be gleaned from the lives of Lincoln, Lee, Davis, and Grant.

As the topics indicate, the work should be primarily taken from the biographical sketches of men who really made American history. The work should be informal in character and may readily be connected with a plan for oral composition.

Grade Six.—The following outline which is taken directly from the Baltimore Course of Study represents so well the author's opinion about the matter that it is quoted in detail.*

I. What we learned from Greece.
   A. Life in Sparta and Athens should be studied in detail; also the lives of such persons as Socrates, Herodotus, Phidias, Aristotle, Solon, Pericles, and Alexander the Great.

* "Baltimore Course of Study," p. 64.

B. Olympic Games.
C. Battles.
1. Marathon, Thermophylæ, Salamis.

II. Rome and what she did for the world.
A. Birth of Rome.
B. Rome's Progress and power.
C. Early Christianity in the Empire.
D. Rome's influence on civilization.

III. Beginnings of Germany and France.
A. German tribes, Angles, Saxons, Franks, and Vandals; their characteristics.
1. Stories of their great men.
a. Charlemagne, Alfred the Great, Clovis, Alaric.
2. Conditions in the Middle Ages.
a. Peoples.
b. Life, government, trade, education, church (Cathedrals, Monks, Monasteries, and the Crusades).

IV. Beginnings of the New World.
1. Causes leading to its discovery.
a. Crusades.
b. Wanting of a new route to India.
2. Columbus' discovery.
a. His early life.
b. Later voyages.
3. England under Elizabeth.
a. Her mastery of the seas.
b. Elizabeth, and her work.
c. Her discoveries.
1. John Cabot, Vasca da Gama, Balboa, Magellan, Hawkins, Drake, Raleigh.
4. Spanish discoveries.
a. Where made.
b. Search for gold.
c. Bringing of slaves.
5. French make attempts and fail.
a. Knights stories.
b. Cartier.
6. Dutch make discoveries.
a. Hudson.

Project.—Events, Introduction of the telegraph.

1. Old conditions of communication.
2. Defect of the old system.
3. Invention of the telephone.
4. Favorable results.
5. Defects, if any.

GRADE SEVEN.—Some attempts have been made to determine, if possible, the minimal essentials for United States history for the seventh and eighth grades. So far no final judgment has been expressed in the matter. One notable attempt, that of Professor W. C. Bagley, is worthy of special attention. His studies in the problem are admirably summed up in a recent report to the National Society for the Study of Education.* It would be worth while for every teacher of United States history in seventh and eighth grades to know the results of this interesting experiment. It was a study of "twenty-five elementary text-books representing four successive periods of publications between 1865 and 1912, and the principal results are based on a careful analysis of twenty-three of these books." Topics were selected on the basis of being common to at least three-fourths of the twenty-three books. Professor Bagley says that most of the topics coincide with the recommendations of the "Committee of Eight." The outline of the list is included in Appendix D.

Objectives.—It may be well to state objectives for the seventh and eighth grades.

* Bagley, "Sixteenth Year Book of the National Society for the Study of Education," ch. 9.

1. To give the pupil a good view of the growth of the United States, as a whole, through particular phases of development.

2. To connect the past and the present in United States history.

3. To aid the child in getting an appreciation of his social surroundings and industrial institutions.

4. Up to this grade the method of treatment of history has been largely that of giving historical pictures by means of selected biographical stories and events. At this time we need to learn to use effectively the following:

1. The text-book and the topical method. Through these we are to teach the pupil to think independently and to express his own ideas on any topic.

2. The pupil should now get a good geographic background by the use of map study and map drawing correlated with the history.

The following outline of directions and topics will be of use to the beginning teacher:

1. Group historical events around the following dates: 1492-1607, 1620, 1775, 1789, 1791, 1812, 1861, 1896, and 1917.
2. Special topics.
3. Written test and examinations.
4. Magazines and periodical literature.
5. Note books.
6. Debates and history clubs.
7. Illustrative material.
8. Dramatization and pageants.
9. Historical poems.
10. Historical novels.
11. Lantern slides.

MINIMUM ESSENTIALS:

Beginnings of New World, 1492-1607.

I. New World before Columbus.
II. Motives of discoveries and explorations.
III. Discoveries and explorations.
IV. By whom made.
    1. Northmen,—the Indian, and the Mound-builders.
    2. English,—Cabots, Raleigh, Drake.
    3. Spanish,—Columbus, Magellan, De Soto, Balboa, Cortez, and De Leon.
    4. French,—Verrazano, Cartier, Champlain.
    5. Dutch,—Hudson.

Colonization, 1607.

I. New England Colonies.
    1. Massachusetts—Plymouth, and Massachusetts Bay Settlers, Pilgrims and Puritans of England, Voyage of the *Mayflower* and the *Mayflower* Compact, Massasoit, Miles Standish, William Bradford.
    2. Settlement of Boston—Governmental difficulties, Industrial conditions, leaders, education, and the founding of Harvard University.
    3. Connecticut—Settlement at Hartford and New Haven. First written constitution.
        a. Indian Wars—King Phillip's War, Pequot War, Charter difficulties and Charter-oak episode.
        b. Thomas Hooker and Sir Edmond Andros.
II. Middle Colonies.
    1. New York—Settlements, Dutch rule, English conquest and rule, Geisler's rebellion, the Patroon system, and Peter Stuyvesant.
    2. New Jersey—Grants to Berkley and Carteret, settlements, divisions in the East and West Jersey (creation of a royal colony), Lord Berkley, George Carteret.
    3. Pennsylvania—William Penn and his Quakers.
        a. Settlement—Founding of Philadelphia, Grants to Penn and Government—(Proprietary).

4. Delaware.
   a. Settlements, Lord de la Ware.
5. Maryland—The Calverts (George Calvert and Lord Baltimore). Settlements, Clayborn's Rebellion, Government—Charter.

III. Southern Colonies.
1. Virginia—Settlement at Jamestown (1607), John Smith and John Rolfe, Starving time, Thomas Dale, Pocahontas; Government (First Republican Assembly, 1619, slavery introduced, 1619, Bacon and Bacon Rebellion, Indian troubles; Tobacco culture, indentured servant.
2. Carolinas—Settlements, Grand Model—John Locke, the Huguenots, Division into North and South Carolina, crops—rice and indigo.
3. Georgia—Oglethorpe's plan, Spanish invasion.

IV. Colonial War—King William's, Queen Anne's, King George's (causes—relations in Europe, battles—Port Royal and Louisburg, treaties—Ryswich, Utrecht, and Aix-la-Chapelle). French and Italian Wars, European background (William Pitt, Edmund Burke), causes, Washington's journey to the French Ports, Dinwiddie, Building of French Forts, Braddock and his defeat, Conquest of Quebec—Wolf and Montcalm, Treaty of Paris, 1883, and Acadian Exile.

V. Pre-revolutionary period.
1. Political, social, and industrial conditions in colonies.
2. Policy of English government toward the colonies.
   a. George III and William Pitt.
3. Grievances of the colonies.
   a. Stamp Act, Navigation Act, Townsend Act, Writs of Assistance, Boston Tea Party, Quartering Act, and The Quebec Act.
4. Results of England's policy.
   a. Committee of Correspondence, First Continental Congress.

VI. Opening of the Revolution.
1. First fighting—Lexington, Concord, and Bunker Hill.
2. Declaration of Independence.

3. Article of Confederation.
4. Washington—military hero, Franklin—civil hero, the French Alliance, Treaty of Paris, 1783, Political Conditions under the Confederation, The Northwest (Ordinance of 1787). The Constitution (The Convention of 1787, Leaders, Plans, Powers granted and powers denied the National Government). Contrast with Articles of Confederation.

VII. The New Government—1791. Washington and his cabinet. National debt (Hamilton and Jefferson). Rise of Political Parties, Relations with France (XYZ Affair). Relations with England (Jay Treaty), (Alien and Sedition Law, Virginia and Kentucky Resolution, Lewis and Clark Expedition), Period of Jeffersonian democracy and American spirit (Tryon), War of 1812, Development of the Nation (Monroe Doctrine, and Straining the Constitution), Sectional Dissension (Missouri Compromise, Omnibus Bill, Fugitive Slave Law, Kansas and Nebraska Bill, Wilmot Proviso, Dred Scott Decision, Lincoln and Douglas Debate), Jackson (United States Bank, Panic of 1837, and Tariff of Abominations), William H. Harrison (Clay, Calhoun, Webster).

VIII. The New Democracy.
1. War with Mexico.
2. Industrial Revolution.
   a. Machinery, railroads, telegraph.

Project.—Dramatization of the Constitutional Convention.

Grade Eight.—A suitable outline for eighth-grade history is as follows:

I. Civil War Period, 1861. Study only great military movements without detail.
1. Secession.
   Lincoln and Davis; Grant and Lee.
2. Comparison of resources of the North and South.

3. Study Chief Campaigns.
   Gettysburg, Chickamauga, Vicksburg, Merrimac and Monitor, Sherman's March to the Sea.
4. Emancipation proclamation.
5. Thirteenth Amendment.
6. Policies for reconstruction.
7. Troubles in the South.
   Carpet bag government, Ku Klux Klan, and Force Bill.
8. Fourteenth and Fifteenth Amendments.
9. Relations with foreign countries.

II. A New Union.
1. Opening of the Far West.
   Distributions of public land; Pacific railroad.
2. Financial Affairs.
   Payment of National debt.
3. Labor and Big Business.
   Trusts and corporations, strikes and boycotts, civil service reform, Interstate Commerce Commission, Sherman Anti-trust Law.

III. The Period from 1898 to Present.
1. Spanish-American War.
2. Conservation of natural resources.
3. Theodore Roosevelt.
4. Capital and Labor.
   a. Government ownership of corporations and monopolies.
5. Internal conditions in Mexico.
6. The World War.
   a. American neutrality.
   b. German submarine.
   c. Declaration of War—U. S., Triple Alliance.
   d. German autocracy.
   e. Wilson—Pershing.
   f. Lloyd George—Haig.
   g. Foch—Joffre.
   h. Democracy at war.
      1. Drafts.
      2. War taxes.
      3. National control of food, fuel, and transportation.

The usual procedure for the last half of the eighth year is to make a study of some form of civics. In some schools this study is made in connection with federal and state constitutions. At the present moment, however, there is a very definite tendency toward social civics. The special objectives enumerated for civics are as follows: *

Development of intelligent citizenship by training:

1. For intelligent and conscientious participation in civic activities.

2. By bringing the pupil into intelligent relationship with the community about him.

3. By giving practical knowledge of American politics, party platforms.

4. By encouraging independent thinking and voting.

5. By acquainting the pupil with the function of national, state and city government.

6. By teaching value of seeing all sides of a question and weighing evidences before coming to a decision.

7. By leading the pupils to see what the nation, the state, the city, the town are doing for him.

8. By teaching the pupils to be willing to contribute their share toward securing the proper sort of citizenship.

A brief outline for the civics course is as follows:

MINIMUM ESSENTIALS:

I. Study of the Federal Constitution.
    a. Preamble.
        1. Six reasons.
        2. Compare with state constitutions.

II. Legislative Department.
    a. Senate.

* *History Teacher's Magazine*, Vol. IV, p. 20.

b. House of Representatives.
c. Qualification of members.
d. Organization of each body.
e. Peculiar powers of each.

III. Executive Department.
a. President and Vice-president.
b. Executive powers.
c. Duties.
d. Manner of election.

IV. Judicial Department.
a. Organizations.
b. Jurisdiction of courts.

V. Amendments.
a. Number.
b. Date.
c. Classification.

VI. Community Civics.
a. Provision for health of community.
b. Protection of life and property by the government.
c. Provision by the government and community for social life.
d. Funds for carrying on these activities.
e. Provision for educational opportunities.
f. Protection of society against criminals. Hughes' *Community Civics*, U. S. Bulletin of Education, No. 23, 1915.

State Government.

A. Executive Department.
1. Governor.
2. Lieutenant Governor.
3. Secretary of State.
4. Superintendent of Schools.
5. State Treasurer.
6. State Auditor.
7. Attorney General.

B. Legislative Department, (General Assembly).
1. Senate (number).
2. House of Representatives (number).
3. A qualification.
4. Mode of election.

5. Powers and duties.

C. Judicial Department.

1. Supreme Court (number of judges).
2. Inferior Courts.
   a. Salary, term of office, qualifications, and manner of election.

Compare with the National Government.

1. Differences.
2. Similarities.

Compare with Local Government.

1. Offices (varies with different states).

Object: To bring the government more closely to the people.

a. Administration of Law.
b. Schools.
c. Taxation.
d. Roads.
e. Care of Paupers.

Project.—A visit to the county seat or state capital.

Measuring Results.—It is an exceedingly difficult task to measure the results for sixth, seventh, and eighth grades for the reason that any of the results are to be found only after they function in the character development of the pupil in relation to various economic, social, and civic situations. All this is a lifetime matter, not something which can be measured at the end of any one of these grades.

So far as standardized tests in history are concerned, actually they do not exist. Among the tests available may be mentioned a series by Bell and McCullom, a series of five which test information only in American History. Starch also has some tests in information. Van Wagenen has devised a test for thought, character, and judgment as well as for information. Possibly the

most usable of all the tests is Harlan's "A Test in Information in American History," distributed under the auspices of the Bureau of Educational Research, University of Illinois. It consists of a series of ten exercises which involve various types of important factors in American History. It is easy to administer and score, and there are tentative standards for the seventh and eighth grades.

ADDITIONAL PROJECTS FOR GRADES SIX, SEVEN, AND EIGHT

1. To stage a pageant for the history of any state.
2. The story of the pilgrims.
3. The signing of the Declaration of Independence and the Continental Congress.
4. The Webster-Hayne Debates.
5. The Constitutional Convention has been referred to in another connection.
6. The inauguration of George Washington as president.
7. Colonial life in Virginia on a plantation.

PROBLEMS

1. Tell how to secure active participation of children and parents in the civic movement for clean streets and fence rows.
2. Would it be possible to secure a course of history adaptable to adequate treatment in both city and rural schools?
3. Give a plan for motivating a history lesson so as to hold the attention of all the pupils and at the same time provide for individual differences.
4. To what extent shall we treat history as a cultural subject?

5. How can a teacher measure adequately the results of historical instruction?
6. Is it possible to use source material in elementary school work?
7. Tell how to correlate instruction in history with current events.
8. What are the special instincts and capacities of the adolescent boy to which history instruction should appeal? The adolescent girl?

REFERENCES

McMurry: *Special Methods in History.*
Johnston: *Teaching of History.*
Tryon: *Teaching of History.*
Kendall and Stryker: *History in Elementary Schools.*
Sixteenth Year Book, National Society for the Study of Education, Part II.
Report of "Committee of Eight."

CHAPTER XIV

MUSIC

History.—The first music was made up of rhythm connected with words. It may be illustrated by the mother's lullaby, the warrior's battle cry, or the tribal songs of worship. Elaborate examples of this stage of development may be mentioned, such as the Psalms, the "Iliad," and "Æneid." Even in later times, the songs of the troubadours and meister-singers were primarily chants in which rhythm was the main feature.

Among the early instruments used may be mentioned various forms of the drum type. Sometimes a hollow log whose possibilities might be increased by skins drawn over it served as the drum. The earliest music had no means of representation, no scales, no staff, no melody, no harmony. In the main it was a monotonous chant in a minor mode.

All primitive peoples were fond of this simple music and made use of it in various ways. In early times only men were musicians; in fact, the women had very little to do with music until the classical period. The early Egyptians constructed rude harps, flutes, banjos, and lyres. The Hindoos invented a stringed instrument played with a bow, a sort of ancient violin. Hebrew history records the use of wind instruments and cymbals

and also the harp. The organ has been nearly 2,000 years in its development. The Greeks constructed the first choral songs and formed the foundation for the music scale.

Opera had its beginning in Italy about the opening of the fourteenth century, being in part a by-product of the Renaissance movement. The oratorio and the opera have the Miracle Plays of the middle ages as a feature of their background.

It is said that Rousseau had much to do with the developing of the modern scale and notes to accompany it. It is only since the sixteenth century that the great composers have lived: Bach, Handel, Hayden, Mozart, Shubert, Mendelssohn, and Wagner. Beethoven developed the orchestra. The band with all of its uses and possibilities is a product of the last century.

In some measure it is possible to trace the story of each nation's progress through its musical compositions. In civic, social, and martial life nothing seems more necessary than music to arouse enthusiasm, give pleasure, and spur men on to noble deeds. Notwithstanding the fact that music in its various forms is about as old as civilization, it is comparatively new in the school curricula of this country. Of course the Greeks made elaborate use of it, and through the middle ages, in connection with religion, it constituted a very significant part of the training of the priest and monk.

Modern music is composed of rhythm, melody, harmony, expression, and instrumentation or tone color.

Objectives.—(1) Music is a language. It is peculiarly

the language of the emotions; indeed, it is the most universal language of the emotional life. Therefore, the mastery of its technique opens up a vast literature in this realm of human experiences. (2) It is essentially social in its nature. In fact, it has been called the most social of all the arts. We know very well its importance in connection with any group movement. We may enjoy it as listeners, or we may double our experience by active participation in chorus, orchestra, or band. (3) Perhaps no other subject in the elementary curriculum furnishes so many opportunities for pleasure and recreation. Even the "movies" may employ it as a drawing feature. (4) In the opinion of the author it is doubtful if any other subject in the curriculum may be made to yield more valuable training in the social and moral life of the child. Indeed it is obvious that the great fundamental human experiences have been conventionalized in some one or more of the various musical forms. It is possible to gain direction and control of the emotional life by this means as in no other way. In all of the great crises of life it is the best language to direct our emotional expressions. If the occasion calls for some great patriotic demonstration, in every age the songs of the people have been the best medium for expression. No matter whether our experiences are in worship, love, hope, adversity, sorrow, or death, there is no language comparable to the universal language of music. Not to furnish every child in the twentieth century adequate education in this important subject is to rob him of his rightful inheritance and doom him to a poverty-stricken emotional life. It is

well to remember that as many children can learn to sing and play instruments as can learn any other of the school subjects. In fact the appreciation for rhythm and harmony is fully as fundamental as any other of the human instincts.

There are some secondary objectives which are worth noting. The principles which are applied in securing good tone or correct speech are exactly the ones to be used in singing. Breathing and posture habits which are correct in singing are the habits which we should have for right living.

Music may also be classed as one of the tool subjects inasmuch as it is one of the techniques by which the child controls and interprets a wide range of experiences. Seashore calls attention * to the fact that the necessity for reflective thinking in music is found in the necessity for understanding the principles of art, the necessity for penetration into the human emotions which are to be swayed, the necessity for comprehending something of the principles of physics, the physiology and the psychology of tones, and the desirability of conceiving of one's musical world as a part of the larger world-view.

MUSIC IN THE PRIMARY GRADES

Grade One.—We need to remember that all normal children may learn to sing. Those who have no malformations caused by diseases, such as scarlet fever or measles, learn to sing readily. It is not unusual to find one or two monotones in each schoolroom. These usually may be

* "The Psychology of Musical Talent," p. 258.

cured by helping them to imitate a siren whistle or bird calls such as the cuckoo, the jay or the crow.

The rote songs should form the basis of musical instruction in the first three grades. The subject matter of these songs should have to do with the child's interests in life, the things about which children enjoy singing. In the selection of these songs the age and ability of the class, the range and difficulty of the songs, the time of year and correlation with other subjects should also be considered. Kendall and Myrick say: * "Select songs of short, easy, well-marked tonality, pure melody that does not need accompaniment." We know very well that children of this age live much in a world of fancy and are highly individualistic. These facts should be taken into consideration also in the selection of the literature for the songs. The songs should be for the children, not about them. The teacher may sing for the children—but generally not with them.

A prominent supervisor and teacher of children proposes the following as a method of teaching rote songs: (1) Discuss the story of the song with the children. (2) The teacher may then sing the song as she wants the children eventually to sing it, artistically, light and rather fast. Never drag a rote song. (3) Discuss any new points that the combination of words and melody may suggest, when the class has failed to get through a study of the words independent of the music. (4) The teacher sings the first stanza of the melody, then the children hum the melody. The teacher sings the first phrase (phrases are

* "How to Teach the Special Subjects," p. 40.

divisions into which melody naturally falls, usually the length of a line of poetry). Then the class sings the phrase back to the teacher. The teacher sings the second phrase—then the pupils sing it. The teacher directs the class to put the first and second phrases together. The teacher then presents the third phrase, the class singing it immediately after her. The teacher then sings the fourth phrase requiring the class to repeat, following her until all the phrases from the first to the end of the song are learned. Absolute accuracy both as to time and melody should always be insisted upon. Use a pitch-pipe or some other instrument to insure accuracy of tone. Because the children's voices are very delicate there should be no careless guesses at the pitch of songs. It is very easy to cause strained or worn-out children's voices by the selection of songs having too great a range or by allowing children to sing in too loud tones.

Rote songs may be very successfully taught by means of a phonograph. This is an excellent solution of the problem for the teacher who does not dare depend on her singing voice for accuracy. The songs of the entire first year are learned by imitation and made interesting by motor activity as in the action songs and singing games. As a minimum, two rote songs may be taught each month in the year. Such songs as "Birdies Fly," "Raindrops Fall," "Down Come the Autumn Leaves," and "Up Goes My Kite" may be used to help children to grasp the significance of pitch structure. Some other songs to be used are: "Hot Cross Buns," "London Bridge," and "Little Bo-Peep."

In this grade as in the other primary grades some of the learning is based on motor activity, but the greatest amount is based on the law of imitation.

Grade Two.—As in grade one, the rote song is the basis of instruction. The song may be slightly lengthened, but the same method of teaching is used. It should be noted that the rhythm of music is quite as important as the tone and it may be marked in various ways, such as clapping the hands, marching, tapping with the feet, swinging of the arms or body and making motions suited to the instruction.

Toward the end of the second year, the basis for scale work may be laid by teaching the tonic chord (do, mi, sol) by a rote song. The following method may be used. The children form a circle. A red ball is given to one child, a blue ball to another, and a yellow ball to a third. The first one sings "I am a little red bird; do, do, do." The second one sings "I'm a little blue bird; sol, sol, sol." The third one sings "I'm a little yellow bird; mi, mi, mi." Then the children all sing "So the little birdies all agree." The balls are then passed to the left, and the song repeated. The staff may be introduced in the form of a fence and the birds placed on the different boards. When the red bird sits on the first board, the yellow bird sits on the one above him and the blue bird on the third board. Movable *do* may be taught by showing that when the red bird flies to a different board, the others move too. The law of association fixes the position of do, mi, sol, and the motor activity required to make the birds and the fence also has educational value.

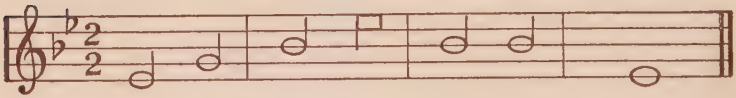
Of course, the above scheme is not original. It has been used in various forms by many teachers and supervisors, for it has in it all the elements of good teaching.

GRADE THREE.—Rote songs, but fewer in number than in the second grade, are taught—the method being the same as in grades one and two.

The monotones should be eliminated by this time.

Review the Bird Song and tonic chord. Introduce the Bell Song by means of colored balls, singing by syllables. The children may write the song by using colored crayon—introducing high *do*.* After the syllables are learned, and the song written, the words may be given and the notes written on the blackboard with white crayon.

THE BELL SONG



Do mi sol do sol sol do
Hear the bell say ding dong bell.

The whole note and half-note may be taught, correlated with number work, and the song written in the common keys when the habit of association becomes fixed.

Step two in teaching the scale.

In teaching intervals we almost always proceed from a higher tone to the new one; thus, the new syllable would naturally be ti. Teach the interval do, ti, do by

* You will note that the syllable emphasized is indicated in each example by a rectangular character.

note, using a white ball for ti. Then develop the following song by holding up the colored balls and having the children sing the syllable corresponding to the color.

Come and Sing

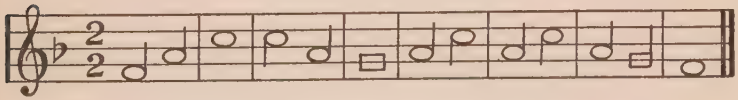
Do ti do sol mi do sol Do mi sol sol do ti do
Come and sing this song with me, I'm as hap-py as can be.

The value of the quarter-note and marking off the measures become a real problem in arithmetic. Write in colors as before.

Step three in teaching the scale.

Re is the third syllable taught, and is approached from the syllable mi, using an orange-colored ball. The plan of writing the notes upon the staff in colors in all keys and then in white crayon is used. A review of the whole and half-note, learned in step one, occurs in this song.

Come With Me



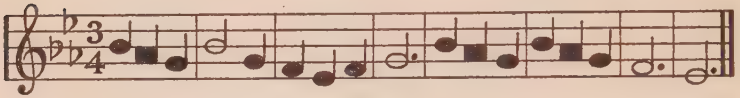
Do mi sol sol mi re mi sol mi sol mi re do
Come with me, we shall see pret-ty pus-sy climb the tree.

Step four in teaching the scale.

Fa, the new syllable, is taught by proceeding from sol downward. Use a green ball for the color scheme. The

new arithmetical problem is three-four time and the combination of the quarter and half-notes, and the dotted half-note.

The Bee Song

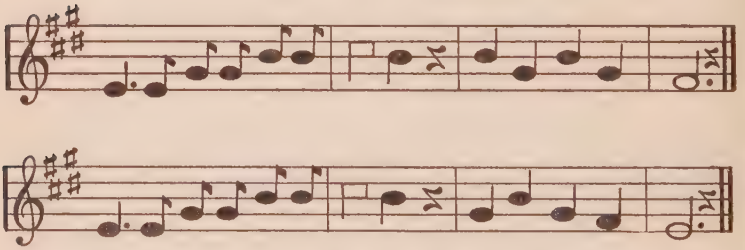


Sol fa mi sol mi re do re mi sol fa mi sol fa mi re do
In-to the blossom zoom goes the bee
Out a-gain in a-gain z——z——

Step five in teaching the scale.

La is the new syllable and, contrary to rule, it is approached from below (sol-la-sol). This time we use a violet-colored ball and the new problem is four-four time and the eight-note and the quarter-rest.

Teddy



Do do mi mi sol sol la sol sol mi sol mi re
Ted-dy is my lit-tle play-mate and he has white hair

Do do mi mi sol sol la sol mi sol mi re do
Long and shaggy rough and scrag-gy, for he is a bear.

By this time the child has the association well fixed, as he has heard the song, has sung the song, has heard it and sung it; he has written the song, he has sung the song, he has written the song and sung it; he has heard the song, written the song, seen the song and sung the song.

The scale may now be written in colors; the child will readily see that he has a series of eight tones, and the name-scale may be applied. By correlation with art he will be led to remember the colors of the rainbow by association with his scale in music. Do, red; re, orange; mi, yellow; fa, green; sol, blue; la, violet; ti, a combination of all colors.

The preceding songs have also furnished ear and eye training, and the child should have a good foundation for the note reading he will do in grade four. The key signature has not been taught except in explanation of movable do. No stress has been put upon the subject as it is taken up in the next grades.

Grade Four.—Review the steps in scale foundation by giving new songs to illustrate. Introduce staff, key signature, value of notes and rests and time. Use rote songs as art songs. Give much eye and ear training by singing phrases and having children write them.

As in the first three grades, children should sing very softly. Individual singing should be encouraged, and introduced through means of rounds. Introduce "Music Reader," Book I.

Motivate the work of this grade so that the children will not lose interest.

Grade Five.—Teach art songs by rote, about one each week. Read simple melodies at sight, and give considerable eye and ear training. Review the work of the previous grades. Insist upon clear enunciation. Sing simple two-part songs and rounds. Introduce "Music Reader," Book II.

Grade Six.—Review the work of the previous grades. Emphasize the building of scales and study intervals. Simple chromatics and a thorough knowledge of all major scales should be attained. Art songs by rote.

Grade Seven.—Review the work of the previous grade. Take chromatic scales and minor scales. As this is the period of approaching adolescence, the entire aspect of the musical program changes. Different types of songs must be selected. Boys will like songs such as "Soldier Boy" and "Soldier's Chorus." The songs must have action to satisfy their demand for that sort of thing. In rhythm, they should be able to read readily all forms found in six-eight measures, two counts to the measure, and to sing four tones to a count, and should study syncopation. Book III.

Grade Eight.—Review the work of the seventh grade. Pupils should be able to write signatures for major and minor keys and know the varying uses of the chromatic tones as they indicate a passing change or modulation. In rhythm work, they should readily sing four tones to one count and have some knowledge of syncopation.

During the eighth year care must be taken of changing voices. Boys will be very sensitive and need encourage-

ment. The changes in girls' voices are less noticeable than in boys' but require the same care.

Projects.—*Grades one and two.*

1. Programs for Special Days.
2. Dramatizing Songs.

Grades three and four.

1. Programs for Parent-Teachers' Associations.
2. Special Christmas Program.

Grades five and six.

1. Organization of a Music Club.
2. Composing Songs and Yells for School.

Grades seven and eight.

1. Planning and Putting On an Operetta.
2. School Orchestra.

Measuring Results.—Musical talent is like other capacities of children. It is bestowed unevenly. However, methods of measuring musical talent are yet in their infancy. Practically all the completed work of this character has been that undertaken by Professor Seashore. He says: * "We have found that the fifth grade is the best stage for the survey of musical talent because the children as a class are able to take a responsive attitude at that age and because it is early enough to start a child in a musical education in case it may have been neglected up to that time."

The Seashore tests for musical talent are now available for use, and supervisors may use them with good results.

* "Eighteenth Year Book, National Society for the Study of Education," Part II, Ch. 6.

The ordinary room-teacher who has a small amount of knowledge of music can apply the tests with profit.

MUSIC APPRECIATION

There is another phase of musical instruction which has come into prominence recently; namely, that of appreciation of masterpieces. Because of the difficulty in technique, it is not possible, and probably not desirable, for all children to undertake the labor necessary to prepare themselves in the art of music, and yet it is desirable for these children to know the great masterpieces of music from all countries. In this way good taste for the best in music may be cultivated. By means of the various mechanical devices it is now possible to have any masterpiece presented in fairly good style. Among these devices may be mentioned the victrola, the phonograph, and the piano player.

Of course, another way to provide for appreciation is to have local or traveling artists sing and play before the children at regular intervals. If the children hear the same pieces of music a good many times, even though they may be difficult for the ordinary musician to render, they will in time come to understand and appreciate them. The following is a list of masterpieces which should be known by all children.

Beethoven . .	Moonlight Sonata, Minuet (Kreisler)
Brahms . . .	Wiegenlied. Hungarian Dances
Cadman . . .	From the Land of the Sky Blue Water
Donizetti . .	Sextette (from "Lucia")
Dvorak . . .	Humoresque. Slavonic Dances
Grieg	Peer Gynt Suite (I-II-III-IV)

Godard . . .	Berceuse (from "Jocelyn")
Gounod . . .	Soldiers' Chorus (from "Faust")
Handel . . .	Hallelujah Chorus (from "The Messiah")
Hayden . . .	Serenade
Liszt	Hungarian Rhapsody No. 2. Liebestraum
MacDowell . .	To a Wild Rose. From an Indian Lodge
Mascagni . .	Intermezzo (from "Cavalleria Rusticana")
Mendelssohn .	Songs without Words. Midsummer Nights' Dream
Nevin	Narcissus
Paderewski . .	Minuet in G
Rubinstein . .	Melody in F
Rossini . . .	Overture (from "William Tell")
Schubert . . .	Serenade, Hark! Hark! the Lark. Impromptu
Schumann . .	Traumerei
Verdi	Selections from Il Trovatore, Aïda, Rigoletto, (Quartette)
Wagner . . .	Evening Star (from Tannhauser) Lohengrin

PROBLEMS

1. Describe methods to encourage a timid boy to participate in the music.
2. What are the ways to get rid of a monotone?
3. Enumerate the instincts and interests which are the bases for the study of music.
4. How would you select the characters for an operetta?
5. Select five good songs to emphasize home relationship. Five patriotic songs.
6. Is it worth while to memorize the words in music of songs which are considered classical?

REFERENCES

1. *18th Year Book, National Society for the Scientific Study of Education,* Part II, Chapter 6.
2. Kendall & Mirrick: *Teaching the Special Subjects,* Chapter 2.
3. Farnsworth: *Education Through Music.*
4. Seashore: *The Psychology of Musical Talent.*

CHAPTER XV

DRAWING

The History of Drawing.—The development of free-hand drawing as an element in education has been, informally at least, consonant with the history of the race. Aristotle included it among the important subjects of the instruction for the Grecian boy. The first form of writing may be said to have been very largely a matter of drawing, for the pictograph was not writing in any modern sense, but a picture. The early forms of written expression among all primitive peoples might very well be classed as drawings. Through the middle ages this form of art did not receive as much attention as had been the case with the Greeks. However, the writing in the monasteries, in many cases, was a very highly developed form of drawing. Among the modern reformers, both Comenius and Locke recommended drawing as an important element. Locke would have the children taught to draw soon after they learned to write. Rousseau and Pestalozzi both recommend drawing as of considerable importance. Rousseau argued for the skill it gave the child, and Pestalozzi, primarily for its effect upon the taste of the worker. Moreover, Pestalozzi would have children study representation in three dimensions through clay modeling. This subject was developed by Froebel,

who in his kindergarten made drawing and all forms of representative hand work play an important part in the children's activities. Sometimes this form of art is regarded as something unnecessary and is classified as a kind of ornamental fringe which may be put on an education or left off at will. Yet, the casual student of history discovers that there has never been a time when this form of skill was not important.

The anthropologist who reads the story of the cave dwellers of western Europe, the cliff dwellers in America, and the American Indian in any part of the great western hemisphere discovers at once that these peoples recorded their need of things beyond food, clothing, and shelter by scratching ornaments on the walls of their caves, carving their dagger hilts, and decorating their rude utensils. Their dwellings, their clothing, their weapons of warfare all gave evidence of the use of this form of art. As a matter of fact, it is almost possible to trace the history of mankind by the forms of art which were used at the various stages of progress. In the great museums of the world, it is possible to trace with considerable accuracy the stages of the various peoples of northern and eastern Europe by their works of art; by what they engraved upon the buildings in which they lived, worshiped, and were buried, even by their clothing and the utensils which they made and used every day.

Benjamin Franklin advocated the subject of art in 1749. In writing on the subject of art in the United States, Henry Turner Bailey suggests that drawing in America first made its appearance in industrial centers

as early as 1812. However, it is recorded that William Bently Fowle in 1820, headmaster in a public school in Boston, introduced it as a required study and shortly thereafter translated a French book on the drawing of geometric figures for the use of the elementary schools. Instruction in this form of art, however, is not much more than forty years old in the United States. Our federal government has never made any appropriation directly for art instruction. Drawing, as a part of a course of study under mandatory legislation, is to be found in only twelve of our states. However, it may be noted that drawing in the public schools is approved in at least thirty-one other states, and it has been promoted in general fashion through the agencies of State Normal Schools, Teachers' Colleges and some institutions on private foundations. At the present time, apparently, there are only two states which employ supervisors of art for the state. These are New York and Massachusetts. More than 90% of all of the cities in the United States with a population of 5,000 or more require drawing as one of the subjects in the course of study.

Arguments for Drawing in the Public Schools. (1) Drawing, a form of language.—The first important argument for drawing as a requirement in all public schools is that it is a natural form of language. It may be employed by all children; indeed it is a very definite sort of language. It may be used to express most accurately and most beautifully many types of human experiences. It expresses more accurately than any other form of language, several important types of human experience. A

good example with which to illustrate this is a drawing which gives direction for travelers. In modern life with the automobile as a means of transportation, the necessity for accuracy in directions is very great. Another good example is in the case of plans and specifications for a building. The modern skyscraper might possibly be described by the English language or in terms of the French language, but by means of modern drawings the thing can be done much more economically and vividly. Moreover, it appeals directly to the instinctive capacities of children. Every child will secure a pencil, crayon, charcoal or something else and attempt to express his experience by means of crude drawings. This tendency is as universal as the tendency to talk. Drawing is one of the very best means of securing motor control. It should be kept in mind that as large a number of children may learn to use this language adequately as will learn any other form of language.

(2) The second main argument for drawing is based primarily on economic grounds.

It seems probable that this was one of the main reasons for the introduction of the subject into the course of study in our country. Down to the middle of the eighteenth century, the education of the artisan always included an apprenticeship in drawing in order that the artisan might be qualified for his trade. The development of factories has eliminated the possibilities of apprenticeship as a means of securing skill for the trades. Moreover, the apprenticeship has never been so successful as a form of instruction in America as in some European countries. It

suggests slavery and servitude, and therefore is repugnant to the love of freedom characteristic of the American. As a result of these factors this subject has come to be a more important element in public schools.

It was first introduced in the great manufacturing centers, and it has been said that this was the chief argument which led to the introduction of drawing into the public schools in the great cities, especially in cities in which manufacturing is important. One of the best examples is the case of Massachusetts, as it was one of the first states to introduce drawing. It was made permissive in 1860, and in 1870 it was made mandatory. The reasons for the importance of drawing to industrial centers are so obvious that they will not be discussed at length here. It should be pointed out, however, that the value of a rug, a piece of furniture, or a garment of any kind is not based alone on the fineness of the material of which it is constructed, but that the design and the style are most important factors in determining the value of the article. In fact, it is evident in America that we buy things because of design and style rather than on account of the intrinsic value of the material used in the article.

(3) Esthetic argument.—The third argument may be denominated esthetic. The love of the beautiful in its various manifestations is instinctive. However, the form of the beautiful which a child may be able to appreciate is dependent very largely on instruction in artistic expression. Our living means more than meat and drink. The enjoyment of the beautiful is not for a few privileged individuals, but in a democracy it is something for all of

the people. All of us need to be able to enjoy the beautiful. We are compelled to judge the quality of design in woven and printed goods, in wall paper, rugs, furniture, and clothing. We must choose the color for the outside of our houses and select our interior decorations. We must buy costumes for various occasions. We need to know how to buy good pictures. Indeed, we all need to know how to make our homes and our streets more attractive.

Some time ago, Professor Walter Sargent of the School of Education of the University of Chicago (*Bulletin* No. 43, 918, *Bureau of Education*) said: "The history of drawing in public education has been such as to create a tradition that it is a special subject, in the sense that it is possible of attainment only for those who have a special talent and that it has value mainly for those who may later have occasion, as artists, to use it." This tradition has tended to take the vitality out of the instruction given by the grade teachers because they feel that drawing is neither possible nor worth while for the larger number of children in the public schools. As has already been observed, this is fundamentally incorrect; it is valuable and possible for all of the children. Moreover, it has been clearly demonstrated that children learn this subject as well as any other in the curriculum, if it is taught in accordance with the laws of learning. There can be no debate about its being the function of the public schools to help secure for all children the values enumerated above, not on the basis of training in drawing to develop artists, but rather in order that the child may be able to

live a normal life in a modern civilization. All children should learn to draw rough sketches from nature, to paint, to illustrate, and to design in simple ways.

Special Objectives in Art.—There are at least two fundamental objectives for art education. These objectives are derived immediately from the discussion in the previous paragraph. First, we need the ability to recognize values in art qualities, and second, all children need to have such training and education as will enable them to draw or describe things or experiences graphically. Instead of building up such expressions in this form of art as will constitute an important part of a pupil's general education, we have emphasized too much the training in technique. However, this is also true in regard to music, manual training, and even reading. A large amount of time has been wasted in teaching forms in art which have very little value or significance for children. We know very well that children in the lower grades learn best when the learning situation involves concrete elements and that form of any kind, merely for *form's sake*, has very little meaning and appeal to children.

Important Principles.—There are a few important principles which should be used continually to guide us in instruction in art. These principles are not essentially different from the ones stated in the early chapter on principles. However, we are restating them here in such form as to give emphasis to their special application.

1. Drawing supplements other forms of language by furnishing children with additional concrete expressions of things. It offers another method of analysis and a

different method of dealing with subjects, showing them in a new light. In terms of composition, it is a form of description.

2. In constructive work children should find drawing a means of expression and experimentation which would enable them to work out various constructive problems in a much more comprehensive way than would be possible otherwise.

3. Through drawing and design children will gain an appreciation of what is good taste in their surroundings as well as in their personal appearance, indeed, an appreciation which will guide their judgment in every-day matters.

4. Familiarity with the best works of art and experience in actually expressing and creating in terms of art will enable children to come into possession of a fine appreciation of and a love for that which is genuinely beautiful in nature and in art.

Grade One.—The drawing of the first grade should be undirected and from memory of familiar objects, play, incidents, and pets. It should be kept in mind that the young child draws what he knows from memory rather than what he sees. This is the period, too, of play, and the drawings should be made from his pets and toys, in order to allow him to make use of the play instinct. The first drawings may be illustrative of the work which has been presented in the reading or story hour. For this work the children should have large sheets of paper, nine by twelve inches. Gray manila or bogus paper and chalk or charcoal may be used. This permits large drawings

and the free movement of the larger muscles. It has already been observed in connection with writing that the children naturally secure control of the larger muscles first. The blackboard also should be used for the same reasons which have been advanced concerning writing. It is better to use the flat side of a large piece of crayon and to work in mass rather than in line. The first work should be done in the neutral colors, black and brown, because the use of other colors would tend to take the child's attention from the drawing. After the drawing has been prepared in black and white, the color may be used.

There should be some brush work in the first grade. Large sheets of paper and direct brush strokes may be used. There should be no mincing little lines. Pupils can make large drawings of large flowers such as the hollyhock, the tulip, and large morning glories. After making these in brush work in the neutral shades, the pupils may be allowed to cut from colored paper. They may also be permitted to mount their cuttings on large sheets of colored construction paper. Simple landscapes, sky, and distant trees should be made in crayola; then in water color, and last in cut or torn paper. These may be used as the basis for illustrations based on the reading exercises. The same landscape may be used in a number of different ways, such as a summer scene with blue sky, a sunset scene in summer time, a sunset scene in winter time, or as a winter scene with gray sky.

It is possible to have some work in the drawing of hu-

man figures, using the stick figure in trying to get the correct proportions without attempting to try to fill out the figure.

Children enjoy making rhythmic borders with broad pencils and crayolas while they sing, keeping time to the music with brush strokes. It is possible to get good results by this method because of its appeal to the child's instinctive capacities for rhythmic action. Later these borders may be used in the playhouse projects or in the making of booklet covers.

Projects.—Almost any number of projects may be selected for this grade. It should be kept in mind, however, that children in the first grade are much more individual than social. Therefore, projects should be selected with this fact in mind. One good project that may be carried out in this grade is the making of a leaf booklet. The booklet may be made with manila paper. The covers of bright colored paper is the first step. It is well to make use of the collective instinct and allow each child to secure his own specimens. All the leaves collected should be traced on dark green paper, then cut out and pasted into the book, paying particular attention to the spacing on the pages.

Another good project is the making of Christmas cards and Christmas trees. Ornaments and toys may be cut or torn and pasted on. It is possible to make a group project of this, by allowing each child to make one thing to be pasted on a large tree.

In using objects to draw from, it is well to choose some

familiar toys and the drawings should always be made in parallel perspective. There should be no work in perspective until the fourth grade.

In order to secure the best work in making a border of cut or torn animals or flowers for the room, avoid giving the child a positive pattern. Let him tell his own story and use his own graphic vocabulary. Moreover, it is well to remember that there is a wide range of individual differences among the children of the grades.

Primary pupils should be taught the primary and secondary colors and which ones are partners. This can be done by the use of hectographed outlines to be colored at the teacher's direction. A simple device is to have roly-poly men for primary colors and roly-poly women for the secondary colors.

There should be some memory-drawing in the first grade. We may ask the children to take a good look at some object on the way home or to school and to be prepared to draw it or tear it from paper. After they have made the drawings or torn the paper pictures, let the children take them and compare them with the originals.

By the use of paper, squared in one-half inches, teach the cutting of the letters of the alphabet. The children may be allowed to cut the letters of their own names first; then have the letters pasted on a large sheet of paper.

It is possible to have some class criticism on the good and bad points of the work in order that each child may discover his own mistakes. However, it is well to remem-

ber that children of the first two or three grades are not very much interested in fine distinctions. They are concerned only with general results.

Whenever any new medium is to be taken up, the first lesson should be a demonstration lesson by the teacher in which she shows the correct position and correct handling of the brush or whatever it may be. Because of the capacity for imitation the child learns quickly from this form of instruction.

Measuring Results.—By the end of the first year the child should know the primary and secondary colors and which ones are partners. He should be able to make borders using simple units or lines, to cut, tear or draw simple tree shapes, and should be able to print or cut his own name. He should know how to use a ruler to draw straight lines, to fold and cut squared paper to make boxes. He should be able to make, with a brush or crayola, mass drawings of a few birds and animals and he should be able to draw a few simple toys in parallel perspective.

Grade Two.—In the second grade the predominating interest is still narrative and illustrative, but there is more of a tendency than in the first grade to question the likeness of the symbols to the object represented. The interest in representing more definitely objects and effects is increased during the year. For example, in making an illustration of a poem or story, the narrative interest is sometimes forgotten because of an absorbing interest in drawing in detail one of the objects in the picture. The wall paper or a window or any other feature of the illus-

tration will be magnified to such an extent that it develops into the most prominent part of the picture and the story to be told becomes an incidental matter. There is an increased interest in good arrangement of line and form. Free hand movement and easy holding of the pencil should be emphasized.

The subject matter and method in this grade are much the same as we have already indicated for the first grade. In this grade, children may be allowed to draw with a large soft pencil, massing the work rather than using detail. Some of their subject matter may come from the reading just as in the first grade. However, the bird and animal forms drawn should be more nearly the correct shape and many more forms should be learned. The types used in the first grade may be gone over and refined in some essential features. In the second grade, children should be able to make drawings, with brush and crayon or cut paper, of the more common fall and spring flowers so that the pictures of the flowers drawn may be easily recognized by others who do not know what the drawing is meant to be. It is possible to learn to draw several new tree shapes. These should be taken directly from the children's own observation of trees. One method is to begin with the study of the bare tree, noting the way the branches grow, the difference in thickness where they join the main branch, and the size and shape of the trunk. The bare tree may be used in making a winter landscape. It is well to let pupils fill in a hectographed outline first and then try to make the tree from memory. If the work

is properly directed, it will be very useful to the children in teaching them to observe trees carefully in order to secure material for their drawings.

Projects.—One good project that can be worked out in the second grade is the making of a tree booklet. The booklet is made in the same general way as the one described for the first grade, the trees being torn from green cover paper to be pasted in the book.

In this grade, just as in the first grade, the drawings should first be put into neutral colors and later into whatever color is desired.

Posters may be used in this grade; there are a number of good possibilities in health posters. A series, also, may be taken to illustrate the story of "Hiawatha," "Robinson Crusoe," and "The Three Bears." The tearings should be made of white paper and mounted on gray.

Monochromatic color schemes in three values may be taken up in this grade, though the children will not be taught the term monochromatic. They are taught to make circles in dark and medium colors, placing them in good arrangement on the page and pasting them. Here again hectographed outlines may be used and filled out at the direction of the teacher.

Stick printing may be begun in this grade. Let the first lesson be on some subject in which the children play with the sticks, learning to print with them by experimentation or by the trial and error method. In the second lesson they should have definite directions as to the making of a border or surface pattern. After they have made

their designs, they may be put to some use. Indeed, the use should be the primary object for the making of the pattern.

All drawings should continue in parallel perspective, and the objects which children draw should be largely from their own suggestions.

Measuring Results.—By the end of the second year children should be able to cut and print the entire alphabet and should have made several posters. They should also have a better knowledge of the use of color schemes.

Grade Three.—In grade three there should be a more extended use of water colors. It is best for children here to learn to mix colors, producing the secondary colors by mixing the primary ones. Some little work may be done in analogous color schemes. This may be taught by the use of overlapping circles in hectographed outline. For instance, paint one circle green and the other yellow; the part overlapping will be yellow green, producing the color scheme in three colors—yellow, yellow-green, green.

Near and far relations are presented in this grade. After noting the appearance of a near tree and of a far tree, the children should make a landscape.

Children's actions may be selected as a special subject in the third grade. Their games and sports may be used as a basis for drawing, thus correlating play and drawing.

Work in posters illustrating scenes from history and literature give a wide variation for group work.

Projects.—A Thanksgiving poster may be a project worked out in torn paper. After the story of the pilgrims has been studied, the children can decide what should be

put into the poster. Then each one may make a different object for use in the poster or in a series. The best work should be chosen by the pupils and mounted for the final poster.

Methods.—In handling the brush, crayon or pencil, there should always be a demonstration lesson by the teacher so that the children may learn the technique of handling these working tools. In general, each directed lesson should be followed by one or more undirected exercises similar to it. Memory drawing should be continued in this grade.

Measuring Results.—By the close of the third year, children should be able to print neatly the entire alphabet on one-fourth inch squared paper and should also be able to cut it.

Grade Four.—In grade four, children show a considerable capacity to discriminate in the various general divisions of the work, such as illustration, design and color. The play spirit of the earlier grades is followed by a more objective interest in the drawings, whether they are illustrations or designs. Such being the case more emphasis should be placed on technique than in the other grades. Here it is possible to take up a more detailed study from landscapes, from pictures in the text-books, from reviews of the relation of the sky to the ground, and more accurate placing of objects in the foreground and background, some additional study being made in near and far relations. One new element may be introduced into the study of landscape in this grade; that is, the study of the appearance of a road, which is really a beginning in

the study of perspective. Children should continue the study of analogous color schemes, taking four values instead of three.

Projects.—One simple project in bookbinding may be presented in this grade. The children should be required to make a sample one from dictation or imitation of the one made before the class by the teacher. Then the children should be allowed to construct their own piece of work without any further dictation. In this grade it is common to take up in more detail problems in design, allowing the children to tell a complete story in this form of expression.

As was indicated in a former paragraph, the study of perspective is also taken up in this grade. It is common to begin with the circle drawn in three positions. This may be illustrated with a large hoop.

Another big project that can be worked out in this grade is the making of a flower book. Each pupil is allowed to make one page. He selects a flower that grows in the vicinity and makes his drawing of the plant,—flower, seed, pod, and root. Each page should be lettered by the pupil who makes it, to describe the plant and its habits and uses if it has any. The pages of the whole class may then be bound and the complete book placed in the library.

Another suggested project for the fourth grade is a kite tournament. Each one plans his own kite and its decorations, paints it and gives it a coat of shellac. Prizes may be offered for various features in the tournament; for

example, the largest to fly, the smallest to fly, and the best design.

Measuring Results.—By the end of the fourth grade the children should be able to do free hand lettering and illustrate simple poems. They should be required to illustrate one poem, at least, using an illustration with lettering. They should know something about the value of good design and appreciate the problems in simple perspective.

Grade Five.—The pupils in the fifth grade are now far enough along with the work to understand three color schemes, analogous, monochromatic, and complementary. They should be able to use these colors in the right way and to make their own designs employing them.

Two new things may be taken up in this grade. First, the use of the lettering pen; second, the drawing of circles, cylinders, and prisms in different positions. These drawings form part of the child's graphic vocabulary. They should be so well learned that they may be automatically drawn, for they are to form the basis of an important part of the work which follows.

The first lesson with a pen is experimental, the child using the pen and working as he pleases. The second lesson may be a dictation lesson in which he is directed to copy designs placed before him. After the second lesson, he should be able to make his own designs. A plain alphabet should be lettered with the pen and a short poem illustrated.

Projects.—One more problem in bookbinding may be

taken up in this grade. The lettering pen should be used in making the title page. At this age a diary becomes interesting and may be used as a project.

A bird book may well serve as a class project, each child being allowed to choose the bird that he is to draw. He then makes his drawing and letters his page. The pages are placed in one book and bound for the library.

The study of foreshortened circles leads to leaf study and the study of foreshortened leaves. The leaves may be first drawn in silhouette in many positions; then a sketch should be made of a plant to show the leaves in particular. The geranium is particularly good for this. Foreshortened circles should be made one of the major problems for this grade.

Measuring Results.—A specific result to be obtained from this grade is an appreciation of the right use of three color schemes and ability to use the lettering pen with facility and also some appreciation of the problems in foreshortened circles.

Grade Six.—We regard grade six as the period of beginning adolescence in which the social instinct plays a very important part. The pupils are now able to make more sustained effort at increasing their skill in drawing. They are more interested in games of skill, and drawing to them may become a game of skill. They are more willing to work for a longer period of time in order to gain desired results. Problems which require much more planning and considerable skill in technique may be undertaken. The child here desires to undertake something worth while and definitely connected with social activities.

There usually comes for the first time in this grade a demand for more definite knowledge of how to represent rectilinear and curvilinear solids. Therefore we may begin the study of perspective genuinely for its instructive worth at this time.

Design has an increased value, and abstract ideas may be more interesting than they have been heretofore. Esthetic drawing will become a matter of little interest during this grade.

The study of foreshortened circles should be continued and emphasized in connection with design.

Children may be expected now to be able to use colors correctly in nearly any combination and to provide their own color scheme for designs and decorative work.

Drawing from pose may be attempted in this grade, filling out stick figures; first, in silhouette and then in detail. Some little drawing from life may be attempted before the end of this year.

The spoonbill lettering pen should be introduced in the lettering work of this grade.

Projects.—Projects should include posters of various designs. Suggestions may be taken from health posters, histories, literature, and geography.

One big project in the form of a weed book may be undertaken in much the same way as the flower or bird book in previous grades. This should be made a group project.

Measuring Results.—Special results to be obtained in this grade are: an increased technical knowledge of the use of foreshortening; the use of the spoonbill lettering

pen; simple work in stencil with some simple drawing from life.

GRADES SEVEN AND EIGHT.—In grades seven and eight, perspective is especially emphasized. After a short review of perspective, sketches should be made of buildings, from the buildings themselves. The study of furniture and furniture design is a part of perspective and should be emphasized in connection with interior decoration. The interiors which are drawn and designed should be made in parallel perspective in cut paper. It is reasonable to expect children to show good judgment in the arrangement and choice of colors.

Pencil technique should be emphasized more in these grades than in previous ones, and value charts may be made in pencil and water colors.

The posed drawings in these grades should be incidental to costume design. In designing costumes, samples of the materials which will be used should be pasted on the chart, and it is well to have all the lettering done neatly in india ink. Pupils of these grades should be able to do all lettering automatically and without a copy before them. They must be taught that plain, simple letters are much better than fancy curves and scrolls. There will be considerable tendency to use the fancy curves and sporty aspects of lettering.

Much more advanced bookbinding may be undertaken in these two grades. Particular attention may be directed to the sewed book. Bookbinding is one of the most fascinating and useful phases of industrial work, and children do not have to be urged to work at it. Book-

binding gives them a realization of the value of books; it is a common result to have their respect for books greatly increased.

Block printing should be begun in the seventh grade, the children planning their own designs and carrying them out on linoleum blocks. These designs should mean something, that is to say, they should be more than mere abstract geometrical figures.

Charcoal work may be undertaken in the eighth grade and should include the study of still-life groups and landscapes.

Projects.—One interesting project that may be carried out for this grade is the making of a display of books for a local, county or state fair. The children should plan their own books, design them, choose their materials and color schemes, and carry out their plans without the help of any one. The object of this is to get a number of nearly perfect books.

The work of a landscape in several different media is an interesting project for this grade. It is well to let each child choose the medium that he likes to use. After the drawings are completed, let the class choose the best of the probable four—charcoal, crayola, water color, or pencil. The one selected should be mounted or framed.

The planning or giving of a play makes a big project that can be used with one or both of these grades. One that is typical is the spring festival,—the story of Balder from Norse stories. Recently the author saw "Evangeline" put on by a group of seventh- and eighth-grade children.

In this case the children were, of course, familiar with the story. Some had speaking parts, and some were merely actors in the play. There was a stage manager, a costumer and a musician, and one boy made elaborate drawings on the various blackboards to supplement the stage scenery. All these children were chosen for their work by the class without any suggestion or direction from the teacher. This class judgment stimulated a wonderful pride in good workmanship, for no one wanted to appear mediocre before his class after having been selected for any task for which he has any measure of ability.

Measuring Results.—By this time the pupil should be able to illustrate, with at least one simple sketch, any theme or paragraph which he is asked to illustrate. He should know the proportions of the human figure; should be able to do neat lettering without a copy; and should be capable of showing good judgment in the use of colors, not only in his drawing work but in his own dress. Pupils should be able to make the sketches in perspective and should know the most common tree forms and be able to recognize a tree from its general shape. They should know the common flowers, birds, and weeds of their community and be able to draw them at least with enough care that any one could recognize them. They should also know the meaning of such terms as balance, rhythm, harmony, eye level, vanishing point, foreshortening, and perspective.

Standardized Scales.—The testing of drawing by the use of standardized scales is yet in its infancy. There

have been five scales devised for the measurement of ability in drawing. Two of these are the Whitford scales. The first of these was devised to measure the ability of pupils in drawing; the second to measure the ability of pupils to select and make judgments involving art principles.

The third scale is one by H. O. Rugg for the measurement of a high school pupil's ability in freehand lettering. Of course, this has no direct reference to our problem.

The fourth scale was devised by Professor Thorndike in 1913, and the fifth one is the Child's scale which is based on the use of the Thorndike scale. No one of these scales has been sufficiently standardized to be of great value.

Picture Study.—In connection with drawing it should be noted that children should have the privilege of studying many masterpieces. Sometime ago the author had occasion to examine a series of readers in a set including the first four. The masterpieces and paintings in the original were estimated to be worth more than four million dollars. Their reproduction in these books was a fine one, and there is absolutely no way to measure the influence of these upon the lives of children.

One author has said:* "Pictures are themselves a language. We should give our pupils instruction in the picture language in order that they may learn to talk intelligently in this tongue. . . . The idea of teaching picture-study to children in schools is to create in them a love for beauty and an appreciation of the wonderful

* *School Arts Magazine*, Vol. 20, p. 346.

works of God and man. . . . A few days before taking up the study of a picture there should be as large a copy as can be secured hung up in a conspicuous place in the room. The artist's life should not be discussed first. This should be taken up last of all."

The following list of pictures has been suggested by S. G. Breneiser in the *School Arts Magazine*.*

Grade One

Madonna of the Chair	Raphael
Can't You Talk?	Holmes
Feeding Her Birds	Millet
The First Steps	Millet
Girl With Cat	Hoecker
Cat Family	Adam
Swan	Rhine Prints
Mother Goose Rhymes, set of six	Jessie Wilcox Smith
Little Children of the Sea	Israels

Grade Two

Madonna	Correggio
Children of the Shell	Murillo
Mother and Child	Brush
Ring-a-Round-a-Rosey	Jessie Wilcox Smith
A Child's World Series	Jessie Wilcox Smith
Helping Hand	Renouf
Angel with Musical Instruments	Da Forli
The Cat's Dancing Party	Jan Steen
The Belated Kid	Hunt
Milking Time	Dagnan Bouveret
The Torn Hat	Sully

Grade Three

Holy Night	Correggio
Angel with Lute	Carpaccio
Ilpenstein Baby	Frans Hals

* Vol. 20, p. 346.

Children of Charles I . . . . . Van Dyck
Pilgrims Going to Church . . . . . Boughton
Knitting Lesson . . . . . Millet
Shoeing the Bay Mare . . . . . Landseer
Sheepfold . . . . . Jacque
The Return to the Barnyard . . . . . Troyon
Midday Rest . . . . . Rhine Prints

Grade Four

Sistine Madonna . . . . . Raphael
Village Blacksmith . . . . . Herring
Pilgrim Exiles . . . . . Boughton
Flower Girl in Holland . . . . . Hitchcock
Oxen Going to Work . . . . . Troyon
Escaped Cow . . . . . Dupre
Deer in Forest . . . . . Bonheur
Set of Fairy Tales . . . . . Maxfield Parrish
The Frugal Meal . . . . . Israels
The Gleaners . . . . . Millet
Hiawatha . . . . . Taylor

Grade Five

The Goose Girl . . . . . Millet
The Horse Fair . . . . . Bonheur
St. Cecelia . . . . . Raphael
The Angelus . . . . . Millet
Song of the Lark . . . . . Breton
The Melon Eaters . . . . . Murillo
Repose in Egypt . . . . . Van Dyke
Autumn . . . . . Mauve
Haymakers . . . . . Dupre
End of Day . . . . . Adan

Grade Six

Appeal to the Great Spirit . . . . . Dallin
King David with Harp . . . . . Rubens
Boyhood of Raleigh . . . . . Millais
At the Watering Trough . . . . . Bouveret
Fog Warning . . . . . Winslow Homer

The Sower . . . . . Millet
Oxen Ploughing . . . . . Troyon
Return of the Fishing Boats . . . . . Mesdag
Sir Galahad . . . . . Watts
Columbus at the Court of Isabella . . . . . Brozik

Grade Seven

Christ and the Peasants . . . . . L'Hermitte
Notre Dame Cathedral . . . . . Paris
Cathedral of St. Mark's . . . . . Venice
Flight of Night . . . . . Hunt
Boyhood of Lincoln . . . . . Johnson
Nightwatch . . . . . Rembrandt
The Jester . . . . . Frans Hals
Aurora . . . . . Guido Reni
Dutch Living Room . . . . . Peter de Hooch
Quest of the Holy Grail . . . . . Abbey

Grade Eight

Prophets . . . . . Michelangelo
St. Michael and the Dragon . . . . . Guido Reni
Opportunity and Regret . . . . . Ryland
Joan of Arc Hearing the Voices . . . . . Lepage
The Mill . . . . . Hobbema
The Lake . . . . . Corot
The Pot of Basil . . . . . Alexander
The Bugler . . . . . Hunt
Portrait of Artist's Mother . . . . . Whistler
Three Ages of Man . . . . . Latto

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School Arts Magazine, Vols. 16, 17, 18.
Sargent: *Fine and Industrial Arts in Elementary Schools.*
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Kline and Carey: *A Measuring Scale for Freehand Drawing.*

CHAPTER XVI

MANUAL TRAINING

History.—It is not possible to set any date for the beginnings of manual training in the elementary school. We know, however, that manual arts in various forms have been practised by men from primitive to modern times. The Egyptians were quite skilled in many of the forms of manual arts. In the early period it is not always possible to distinguish between the fine arts and the manual arts. As a matter of fact many of the great artists were craftsmen. A masterpiece from such men represented the worker at a high level of play. At one time the author listed sixty trades and crafts enumerated in the Old Testament. Thus it may be observed that a considerable range of possibilities in choice was afforded the Hebrew boy. The boy usually started his career as a craftsman at twelve or fourteen. The women also were skilled in the handicrafts.

The Greeks developed to a very high degree certain crafts and arts. In some respects they have never been excelled. They worked in wood, gold, marble, granite, and ivory. The Romans did not add materially to the world's knowledge of handicraft. However, in the earlier period they borrowed from the Greeks much of their skill

in both the practical and the fine arts. During the middle ages the various guild systems were developed to a very high state of perfection.

In modern times a new impetus was given the manual arts by the great religious reformer, Martin Luther (1483-1546).

Among other important principles which he advocated may be mentioned that public schools should be planned in such a way that children might attend only a half day, leaving the other half day for work. This, of course, applied primarily to the peasants. In the early history of America we solved the problem by having very short terms of school, three or four months in length. The remainder of the time the children were at home assisting their parents. This represented a sort of apprenticeship. Comenius (1592-1671), the wise Moravian, followed Luther in advocating the half-day scheme. Moreover, he outlined the philosophy for this work and gave some details for carrying it out. Francke, near the close of the sixteenth century, included considerable work in the beginnings of manual training at his reform school at Halle. The course included considerable work in woodworking and the various forms of activity with paper and pasteboard.

John Locke (1632-1704) made one of the main features in the training of an English gentleman in his "Thoughts on Education" the careful training of the boy in some trade. He takes the pains to list the important trades, attempting to set values on each one. There were two main arguments employed by him for this, namely, there

were certain very positive values in physical control to be secured from this training and in case the boy should ever need to work he would not be absolutely helpless. He thought also it might be well to have schools in which the poor children could learn a trade.

Rousseau (1712-1778), in his exceedingly fanciful scheme for training Emile, would require him to learn a trade and selected the trade of cabinet-maker. It is interesting to observe also that the trade was to be commenced between the ages of twelve and fifteen years, practically the period of our junior high school at the present time. However, it remained for Pestalozzi, (1746-1827) to make the largest contribution in this new field of education. It was a part of his general philosophy expressed in "Leonard and Gertrude" that Europe could not be saved from economic and moral ruin unless the peasantry were taught the value of work, and provision made for the children to secure the necessary skill for successful craftsmanship. This philosophy entered more or less into all of his experimental schools. Undoubtedly it furnishes a larger portion of the historical background for manual training and the various features of the industrial arts movement both in Europe and in America.

Fellenberg (1771-1844) established an industrial institute at Hofwyl on a very different basis from the philosophy of Pestalozzi. He and Pestalozzi were associated for a little while in this undertaking. However, Pestalozzi was an idealist, whereas Fellenberg was a practical administrator. He made an economic success of the work at Hofwyl, whereas it was never possible for

Pestalozzi to make a business success of any of his experiments.

One other name may be added—that of Froebel, (1783-1852) who incorporated many of the elements of manual occupations into his kindergarten philosophy and practice. As a matter of fact he thought the play elements with the various materials which the kindergarten emphasized would be of direct value to the children in preparation for trades. Moreover, they were means of self-expression.

A great many other names could be added to this list if space permitted. Suffice it to say that in Switzerland, France, Norway, and Sweden the movement for the various forms of manual education had reached some proportion by 1800.*

In the United States manual training has developed out of private and local initiative. The problem has received some attention at various times in the National Education Association meetings. One of the early projects was an attempt to initiate classes in manual arts by the Ethical Culture Society in New York in 1878. Another one of the outstanding experiments in the United States was that directed by the late Calvin Woodward, of Washington University, in St. Louis. This was a high school or an academy which was most thoroughly equipped for manual training with a variety of shop work in wood and metal, and mechanical drawing. These subjects were taught along with other academic work, with

* Row, "The Educational Meaning of Manual Arts and Industries," Ch. II.

especial emphasis on the sciences and mathematics. By 1900 a majority of the progressive cities in America had adopted manual training. At the present time manual training is rapidly going into all courses of study in the small towns, and good courses are outlined in a considerable number of state courses of study for rural schools. The World War made us more conscious of the need for this type of educational experience, for we discovered many young men who were untrained to do any sort of work. It has been estimated that of ten million workers in factories and mills at least seven millions have no technical equipment for their tasks.

Objectives for Manual Training.—In a recent article in the *Industrial Arts Magazine,** Mr. Frank M. Leavitt, Associate Superintendent of Schools, Pittsburgh, Pa., lists the following objectives:

1. To develop handiness.
2. To promote the immediate carrying over of ideas into action.
3. To help to discover special interests and aptitudes important for vocational guidance.
4. To provide a means for developing technical skill.
5. To provide a means for imparting technical knowledge.
6. To enable the pupil to apply the test of practice to some of his thinking.
7. To develop the mind by providing constructive problems in materials, which demand a vigorous mental reaction.
8. To interest in school work those pupils to whom the traditional studies do not appeal strongly.
9. To create interest in the arts and industries without any reference to their vocational significance.

* January, 1919, pp. 1-6.

It seems that the objective may be stated more directly from an educational point of view as follows:

1. This form of education provides for motor development. In a previous chapter attention has been called to the fact that a large number of children are motor types and learn very largely through motor activity. It is probable that at least one-third of all the children in the public schools of the United States are more or less motor in the capacity to learn. One of the severest indictments against the elementary school curriculum is that it is too literary for the motor child. A good deal of positive evidence could be introduced to show that the literary character of the curriculum is one of the larger causes for the elimination of children in larger numbers, beginning with the sixth grade.

2. A second objective is that of providing work for the securing of pre-vocational skill and insight. It is all nonsense to urge that this work may not have its value in furnishing such habits and skills as may be turned directly to account in the various vocations. To be sure it is not the purpose of manual training to make artisans. There are some distinctions to be made among manual training, industrial education and vocational training. However, it is time for us to recognize the fact that there are many industrial elements among these phases of education. The stunning fact at the present is that so many boys and girls get out of school without any equipment whatever with which to get to work.

3. Another outstanding objective should be so to conduct the work as to enable children to learn to appreciate

the values in the uses of the various forms of material, such as paper, wood, stone, copper, iron, and textiles.

4. It should be kept in mind always that the work in manual training should be conducted in such a way as to allow the child to express himself in the completed task. It is necessary, no doubt, to have some standardized projects. But, as in other subjects, it is nonsense to presume that all children must do the same things in manual training. This idea rests upon an antiquated psychology.

5. A fifth objective may be noted in the fact that manual training may be used to give direction to the instinct for ownership, which is one of the universal human instincts. After a child has made an article we have the normal functioning of this instinct. Moreover, if he chooses to make something as a gift, he knows in a very definite and concrete way the values which are attached to the article. He actually gives something, because he has labored to produce it. In such a gift we have the beginnings of altruism or the development of the social instincts of the child.

6. One of the direct values of manual training is that children learn to make and fix useful things. Some have advocated standardized projects so that there would be no economic trend to the work. Contrary to this it seems to the author that children should be encouraged to undertake projects that have direct value. Moreover, they should be encouraged to undertake to repair articles about the home or on the farm.

7. There are certain moral values in connection with manual training which are direct by-products of the work.

It is altogether possible in the case of history or English, with our loose standards of measurements, to "get by" with paragraphs and sentences which are quite inaccurate. But there is no possible way to cover up the fact that a poor joint has been made or that an edge is not true. There is no possible way to camouflage a situation when a board has been sawed too short. The selection of the right sort of material—the best kind of material for a project—constitutes a moral situation. Illustrations in which there are very positive moral values which come as by-products of the work might be multiplied. This statement of the objectives of manual training coincides in a very large measure with the five fundamental objectives for elementary education which were set out in the beginning of this book. For we have here the physical development of the child as an important part of the work; it is pre-vocational in character; it will provide important occupation for the leisure time of life; and it involves certain positive moral situations which will help in the making of the ideal citizen.

Course of Study.—Grades One to Four.—It is not feasible to outline the course of study in manual training for the primary grades of the school. Some few attempts have been made to do this. One of the very best of the earlier attempts, in fact, one of the best still in print, is found in Row, "The Educational Meaning of Manual Arts and Industries." * A more recent attempt can be found in the "Baltimore Course of Study." † Un-

* Chapter 17.
† Pp. 639-672.

doubtedly one of the simple ways to provide for this work is to correlate it with drawing. Some problems may be undertaken in paper cutting, folding, pasting, and tearing. Some work may be undertaken in clay modeling. Some elementary woodwork may be attempted, and there are numerous simple problems in connection with textiles which may be profitably undertaken by small children.

Grade Five.—The "Horace Mann Course of Study" suggests that in grade five the pottery industry in the United States could be made the basis of one of the major lines of work. Some of the problems in connection with this study should be an historical sketch of the development of the industry in the United States, its extent, pottery centers, workers, wages, and factory conditions, with the study of some of the typical American wares.

Some simple projects in elementary woodwork may be undertaken,—the study of wood as a building material, different cuts of wood, edge-planing, carving as a means of decorating wood.

Projects.—Make a bookrack, a necktie rack. The building of a small frame house may be constructed as a group or individual project. A doll house or a circus parade may be used for a group project.

Tools.—The care and use of a half dozen or more of the simple tools should be taught in this grade, for example, the block plane, jack plane, tri-square, rule, and various kinds of saws.

Grades Six and Seven.—Grades six and seven may be taught together. The materials to be used in these grades

are cardboard and wood. Some of the industries to be studied are lumber and its manufacture into the various products; the metals, which may include lead, iron, and steel; concrete, including its decorative and structural uses; and some of the important features of printing and publishing. Already, attention has been called to book-binding in connection with drawing, which gives a perfect correlation of printing and book-binding.

Among the more important projects in wood may be mentioned the construction of hat-racks, flower-pot stands, mail boxes and shelves of various kinds. Numerous game boards may be constructed. The making of a coat-hanger is a good project for a boy; a calendar back, for either boys or girls. It is time now to begin to study some of the finishing processes, such as sand-papering, oiling, rubbing down, waxing, and shellacing. There may be a very direct connection between a number of these projects and the work in drawing. There is no attempt here to make the list of projects extensive, as many more may be added, depending very largely on the locality and the interests of the children. Beginning with the sixth grade, generally, boys and girls have different projects, the obvious reason being that their interests are different.

Tools.—The tools for these grades include jack-knife, T square, marking gauge, brace and bit, and pencil gauge.

Grade Eight.—In the eighth grade some shop work may be undertaken. Generally one or more pieces of furniture are required as projects for this grade. Picture frames and magazine racks are common projects also. Good projects may usually be found in the needs of the

schoolroom. In towns and cities where there are well-organized courses of study, many important articles of furniture may be made for use in the school. Desks, bookcases, and laboratory equipment may be made. Some study should be made of fillers, varnishes, oils, and wax, in order that the pieces of furniture may be properly finished. It is also necessary to give instruction at the beginning in the use of new tools and machinery necessary for the equipment of a good shop.

The course of instruction outlined has consisted in the main of problems in woodwork, though we have called attention to paper-cutting and clay modeling in the earlier grades. It is also possible to outline good courses in weaving and basketry but woodwork has been chosen as the most valuable.

Methods of Manual Training.—There are several methods of teaching projects in manual training. In a recent discussion * the following methods are presented:

1. *The Dictation Method.*—In using the term dictation method all members of the class make exactly the same thing at the same time and by the same method, with exactly the same size, shape, and finish. Each child is given a blue-print of the article to be constructed, or a detailed drawing may be placed on the blackboard. The instructor makes a careful explanation of the drawing or the blue-print showing the completed model. Moreover, he indicates the tools for every step in the construction and often the stock or parts of it, which have been pre-

* Vaughn, "The Assignment and Planning of Projects," *Industrial Arts Magazine*, pp. 392-396.

pared by the teacher or others, is handed out to the pupils. This might be characterized as a demonstration lesson. It may be said in favor of such a method that it resembles the practice of learning a trade in an industry, and makes large use of the instinct of imitation. However, from an educational point of view it is almost indefensible. It ignores the fundamental fact of individual differences among children and totally ignores the law of interest. In method it belongs to the lock-step stage of education.

2. *The Modified Dictation Method.*—This method is much the same as the one discussed in the previous paragraph. Practically the only difference is that each child may be privileged to make some slight modification in the article, these modifications being indicated on the drawing or blue-print. It is self-evident that this plan is more in line with modern educational theory and practice than the dictation method.

3. *The Optional or Group Method.*—In this plan a group of articles involving the same general type of construction is presented to the children. After discussion each pupil is permitted to select the project in which he may center his interest, or one for which he has definite need. When the selection has been made, it is the general practice to follow one of the methods described above.

4. *Discovery or Recapitulation Method.*—In this method the instructor usually exhibits a number of finished articles suitable for class projects. The pupil is allowed to choose one of the articles for his own problem, making the plans and selecting the stock and tools to be

used. It is very obvious that such a method of instruction is much superior from an educational point of view to the others described. However, there is danger of much waste of time and material, and except in highly developed systems of school it is doubtful if the grammar grades may undertake such work.

5. *Free Choice Method.*—The extreme advocates of the child's interests in modern education would apply that philosophy to manual training. In this instance the teacher usually asks the children what they desire to make. It naturally follows that almost every conceivable article will be suggested by some children, while others do not know anything about what they want to do. In this as in other subjects in the elementary curriculum the children need guidance.

6. *The Problem-Project Method.*—This method presumes the presentation of a project which can be fitted into the pupil's needs and appreciation of values. Indeed, one of the essential features of a project is that it makes a real connection between the child and the life about him. This raises such important questions as the use to which the article is to be put after it has been constructed. The author remembers some eighth-grade boys working several days to get up the goal posts for a football field. This was a genuine project, because they had to get the material and do all the work. Another time these same boys planned a baseball diamond and made a good back stop without any assistance from any one. At the present moment all eighth-grade boys are interested in radio outfits. One source of never-failing in-

terest to eighth-grade boys is animal pets. The normal seventh- or eighth-grade boy, if opportunity presents, will have at some time birds, rabbits, pigeons, guinea pigs, cats, or dogs. All of these animals require houses. Here we have a genuine project.

Measuring Results.—No standardized tests have been devised for manual training. Undoubtedly one reason for this is to be found in the fact that an article itself, when completed, is compared with some other article of the same class or kind, and this constitutes a form of objective measurement. However, there is still need for more accurate measurement than this. In a recent article in the *Industrial Arts Magazine* * Superintendent Leavitt proposes a plan for constructing a scale for measuring handiness or deftness in the elementary grades. It will be interesting to watch the development of his plans.

PROBLEMS

1. Should we have vocational guidance in the elementary school?
2. What is pre-vocational work?
3. Point out a good project in manual training to correlate with agriculture.
4. Suggest a good project in manual training which correlates with geography.
5. What tools should a seventh-grade boy own? An eighth-grade boy?

REFERENCES

Row: *The Educational Meaning of the Manual Arts and Industries.*
Leavitt: *Industrial Arts Magazine,* Vol. VIII, pp. 1-6.

* Pp. 132-138.

Vaughn: *Industrial Arts Magazine,* Vol. VIII, pp. 392-396, and 480-483.
Leavitt: *Examples of Industrial Education.*
Baltimore County, Maryland Course of Study, pp. 639-671, and 688-698.

CHAPTER XVII

HOME ECONOMICS

History.—Education for the home has always been an important factor in the development of civilization. In all ancient, medieval, and early modern times this education and training took place directly in the home under the guidance and direction of the mother and other members of the family. Only in very recent times, in fact, during the latter part of the nineteenth century, has the problem become one for institutional service. In the United States the Morrill Act, which established the land grant colleges in 1862, has contributed in a large way to the developing the study of home economics.

At the present time practically all states in the Union have well-developed courses in home economics in the Land Grant colleges, and very generally there are courses quite well organized in the normal schools and teachers' colleges. At various times, also, the Federal Government has given grants and money for educational research. Benefits have arisen for home economics education, especially through the scientific study of nutrition. More recently, however, the United States Bureau of Education has organized a special division of home economics education. Another aid was the passage of the Smith-Lever Act, which provides for liberal federal aid to state

systems of extension training in agriculture and home economics. Under this law we have had significant development in connection with the home demonstration agent. Attention may be called again to the passage of the Smith-Hughes Act in 1917, which provides directly for the teaching of vocational home economics in high schools. However, it is well to remember in connection with the historical statement that education in the United States is primarily a matter for the states and not for the Federal Government, that "Education in some form for the home is a specifically recognized and authorized subject in approximately three-fourths of the states." * It is definitely provided by all the New England States, all of the Middle States except Delaware, nearly all of the Southern States, all of the Central States but two, and all of the Mountain Pacific States but two. More than thirty states have authorized the teaching of it in elementary schools, and thirty-three states in secondary schools.

In several of the states where there is no actual legal status for the subject, state courses of study under the authority of a state board of education or a state superintendent have outlined regular courses in this important subject.

At the present moment, perhaps the most significant work which has bearing on elementary schools is that conducted by the state in coöperation with the Federal Government through boys' and girls' clubs directed by

* Andrews, "Education for the Home," United States Bureau of Education, *Bulletin* 37, 1914, p. 7.

the farm and home demonstration agents. True, some of this work is given to adults, but much of it, when considered academically, is at the elementary school level.

Objectives.—The objectives stated simply by Rapeer are as follows:*

1. To create a clear understanding of the processes which support our daily lives.

2. To establish through accurate manipulation of materials in true industrial processes an appreciative understanding of the labor involved in the manufacture of various products, and a respect for that labor.

3. To develop skill and technic in the handling of foodstuffs, textiles, woods, metals, clays, and other allied earth materials, in accordance with the powers of the child.

4. To increase the appreciation of home as a center of social, economic, and spiritual growth.

Course of Study.—Of all the subjects of the elementary curriculum, the course of study in home economics is perhaps least standardized. It is very generally agreed that the problems should center about the big topics of food, clothing, and housing. But, as yet, the topics, problems or projects which may be utilized are almost altogether matters of opinion.

Grades One to Four.—It seems to the author that all of the work of the first four grades should probably come out of the various types of hand-work in connection with and correlated to the other subjects. Consequently, the problems or projects which have to do with these funda-

* Rapeer, "Teaching Elementary School Subjects," p. 255.

mental topics of the home,—food, clothing, and shelter, —in geography, history, drawing, and arithmetic, furnish the basis for home economics study in these grades.

Grades Five to Eight.—Beginning with the fifth grade it would seem desirable to make differentiations. Two types are suggested herewith,—one for city systems and the other for rural schools. The one for city systems is taken directly from the *Course in Home Economics,* Public Schools, Berkeley, California, pp. 24-37, inclusive. The one for the rural schools is taken from the *Illinois State Course of Study,* which in many respects corresponds with the author's viewpoint. Moreover, it takes into account the alternative scheme which is necessary in many rural schools.

FOR CITY SYSTEMS

Fifth Grade

Low Fifth.
Projects: Needle books, bib for infant, cardboard doll and clothing, sunbonnet, etc.—holder, school articles, costumes, gifts, etc.

High Fifth.—Kimono for doll, baby jacket, infant hood, blouse for girl, fudge apron, sewing apron, bib apron for small child, case for needle and thread, sewing-bag, dust-cap, articles in low fifth list not made before, school articles, costumes, gifts, etc.

Sixth Grade

Low Sixth.
Projects: Apron for high sixth work in cooking.
Bungalow apron or house apron.
Towel.
Holder case, and holder.
Kimono nightgown.

Kimono blouse.
Child's rompers.
Home garments mended.
Home stockings darned.
Application of darning stitch to garments as ornamental stitch.
Articles for school projects.
Gifts.

High Sixth.—At least two breakfasts planned and carried out by the class.
The actual cookery should include cooking of cereals gruels, the use of left-over cereals in muffins, griddle cakes and puddings; the cooking of cocoa; creamed dishes; fruit; beverages.
Large quantity cooking through the preparation of food for the school lunch should be done wherever possible.
Preparation of refreshments for Mothers' Club meetings.
Making of candy and cookies for school sales.
Cooking of vegetables raised in the school garden.

Seventh Grade

Low Seventh.
Problems: Proper use and care of tools and equipment of school and home kitchen.
Housekeeping duties: sanitation; disposal of garbage.
Value of personal cleanliness, neatness, and order.
Value of accurate measurements.
Rules for cooking of starch, sugar, eggs, and milk; cost.
Leavening agents.
Batters and doughs; baking, oven tests.
Study of recipes; ways of changing, substituting; type recipes.
Study of food groups.
Interrelation of food study with other subjects.
Use of ice and salt in freezing.
The school lunch; suitable combinations, cleanliness, wrapping, packing, attractiveness.
Projects: General cleaning of school laboratory or home kitchen; glass, paint, equipment, stoves, refrigerator, cooler.

The cooking and serving of simple meals which include the cooking of starch foods, milk, eggs, milk and egg combinations, egg as leaven, soda and acid as leaven.
Cooking for school lunch.
Preparation and packing of school lunches.

High Seventh.
Problems: Interrelation of food study with other subjects.
Reasons for spoiling of foods; study of bacteria, how to sterilize, how to preserve.
Study of yeast; what it is; how it raises dough.
Study of flour; how to mix and bake bread and rolls.
Study of meat; cuts, cost, care, principles of cooking; substitutes.
Study of fish; cookery, nutritive value, cost.
Table setting and serving.
Menu combinations; cost of.
Projects: Cooking and serving of luncheons; include the cooking of marmalade; bread, rolls, salad dressing (French, mayonnaise, cooked), salads; soup from meat stock, stewing, broiling, left-over meat, meat substitutes; fish; pastry, candy; ice cream or sherbet.

Eighth Grade

Low Eighth.
Problems: Health—Interrelation of clothing study with other subjects.
Planning—How to take exact measures to find correct amount of material to purchase; how to determine right and wrong of materials; how to place patterns to cut economically.
Cutting—How to pin patterns for careful cutting; how to pin pieces for basting.
Technique of Making—Correct position of hands in sewing; use of thimble; sitting posture while sewing; reason for sewing from right to left; how to run the sewing machine properly; how to make French and flat-felled seams; reasons for stitching on edge of hems; the cutting and joining of bias; how to sew lace on by hand.
How to launder, press, and fold finished articles.

Cost and quality of garments made compared with similar garments ready made.

Projects: Kimono night dress.
Bloomers.
Bungalow apron.
Garments for Red Cross Home Service or Junior Red Cross.

High Eighth.

Problems: Planning—Low eighth problems amplified; interrelation of clothing study with other subjects.
Correct position of hands; use of thimble; sitting posture while sewing.
Cutting—Use of commercial patterns; how to place pieces for economical cutting.
Technique of making—Review of hand stitching; machine stitching; fitting of garments; how to gather; how to set in sleeves; how to make plackets; how to hang skirt; how to sew on fastenings.

Projects: Underskirt or simple outside skirt.
Waist or smock.
Middy.
Wash dress.
Slip.
Garments for Red Cross Home Service or Junior Red Cross.

One criticism might be made of this course,—that it does not give enough attention to the problems of nutrition. Attention should be called to the fact that the course in health and physical education also treats the problem of foods and nutrition.

FOR RURAL SCHOOLS

Fifth and Sixth Grades.—Two years' work in sewing is outlined for the fifth and sixth years. It is expected

that two lessons of 90 minutes each be given to the work each month. In country schools, it is suggested that the time after the last recess on the first and third Fridays of each month be given to this work. If pupils know how to manipulate the tools used in sewing, they can perhaps do more each month than is here outlined. In such cases, additional articles may be included. If desired, the article may be started during the regular time under close supervision of the teacher and finished at leisure moments during the school time, or may be completed at home. The pupils should be urged to supplement the school work by additional home experience.

When first presenting a new application of an old stitch the teacher should illustrate by drawing on the blackboard or by using a large frame of canvas. This canvas should be very coarse and light in color and the stitches should be made with a large needle and coarse yarn of a dark color. The pupil may then practise the stitch on a square of muslin, using colored thread. When sufficient knowledge is gained to enable the student to apply it, the work on the garment should begin. It is not wise to require a perfect stitch before the application is made.

The problems have been planned with special emphasis on the art phase of sewing. The teacher should secure for each pupil a copy of Extension Circular No. 14, issued by Extension Service in Agriculture and Home Economics, College of Agriculture, University of Illinois. These are furnished free to teachers and pupils.

FIFTH GRADE—*First Month.*—Organize garment-making club.

Pin Ball—Emphasize accuracy and economy in cutting materials, holding scissors, position of needle and thimble, correct length of thread, correct size of needle, making knot, sitting posture, correct distance for holding material from eyes, care of tools and material. (See pages 7-8-9 of Extension Circular No. 14.)

Cut from folded paper and stencil design on pin ball. Discuss relation of design to size and shape of space. Review cotton production: picking, ginning, baling.

Second Month.—Problem: Kettle holder. Cut 6-inch squares from scraps of soft wool or cotton material (may be old). Baste layers together and start blanket stitch on raw edges. Discuss spinning with spindle and distaff.

Christmas Problem: Comfort protector of silkoline, sateen or other soft firm material. Cut out and baste ends for French seam. Practise French seam and apply the ends of protector. Discuss spirit of Christmas giving. Discuss care of household articles, especially cleanliness of bedding.

Third Month.—Start basting hem in protector to finish at home. Practice chain stitch. Discuss wheel spinning. If possible have hand cards and wheel and let children card and spin.

Apply chain stitch to protector to hold hem. Discuss modern carding and spinning.

Fourth Month.—Problem: Washable cover for kettle holder. Hem end of strip of gingham or calico, cut 14 in. x 7 in. Discuss cleanliness in kitchen; clean aprons and towels; advantages of cover.

Fold cover for seaming, bringing hemmed edges together at middle of one side. Baste and overhand seams. Overcast raw edges. Discuss weaving, illustrating with cardboard or Colonial loom showing warp, woof, shedding, picking, battening.

Fifth Month.—Sew tape on cover, making loop in end to slip over apron band. Start apron of toweling. (See pages 10-16, inclusive, of Extension Circular No. 14.) Measure for and cut neck. Discuss weaves, illustrating with samples of various materials; plain, twill, basket, stripes, checks, etc.

Sew bias around neck, using combination stitch. Emphasize

neat join. Discuss bias cuts; use of true bias. Make simple weaves in colored paper: plain, twill, some diaper pattern.

Sixth Month.—Baste and hem bias facing to wrong side. Hem lower front edge of apron. Discuss ways of making design in cloth: stencil, block or roller printing, warp printing. Discuss vegetable and artificial dyes.

Practise stitching stitch and use it in sewing back of apron into band. Discuss linen: cultivation, countries producing. Show stalks if possible and let children extract fibers, noticing woody core and bark. Discuss by-products.

Seventh Month.—Baste and hem other edge of band into place. Overhand remainder of band. Twist cord of heavy thread or floss and catch into one end of band, forming loop for fastening. Sew on button. (See page 19 of Extension Circular No. 14.) Compare twisting of cord with thread making.

Apply cross stitch design to apron. Discuss rippling, retting, breaking, hackling; properties of flax fiber.

Eighth Month.—Problem: Overhand patch on garment from home if possible. (See pages 56-57 and 58 of Extension Circular No. 14.) Discuss care of clothes, care in putting away garments, some closet conveniences that help.

Finish wrong side of patch. Review stitches made during year as to uses, starting, renewing thread, fastening.

Sixth Grade.—Alternation: The sixth year's work in Household Arts is to be studied the school year 1919-20 and each alternate year thereafter, alternating with the fifth year's work to be studied the school year 1918-19, and each alternate year thereafter.

First Month.—Problem: Hemmed patch or under-garment or household article. Review overhand patch. Discuss points of difference in making and use.

Problem: Doll's kimono gown. Make pattern for doll's kimono nightgown—free hand or simple draft. Discuss materials suitable for doll gown. Children bring pieces from mothers' scrap bags; also bits of lace.

Second Month.—Cut-out gown. (See pages 12-26, inclusive, of Extension Circular No. 14.) Practise fell and apply to gown seams. Discuss various materials brought by children; their names, weaves and suitability.

Hem sleeve ends and overhand lace to hem. Start facing

neck with bias tape. Finish this and hem gown at home. Discuss laces—hand and machine made. Teacher show samples of various kinds in common use.

Third Month.—Christmas Problem: Centerpiece roll of unbleached muslin or gingham in solid color. Cut out and baste ¾-inch hems on two sides and one end. Discuss orderliness in home; cleanliness of table and bed linens; airing beds and closets.

Practise feather-stitching in striped material. Apply to hems of roll. Discuss satin removal. Do simple experiments. Discuss bleaching, bluing, care in laundering. Baste and hem for tube or pole, at home.

Fourth Month.—Sew on tapes. Make initial with outline stitch. Discuss marking of linens.

Cut out and baste seams of child's skirt in flannel or outing flannel. Discuss wool: countries producing, care of sheep on ranch, shearing.

Fifth Month.—Sew seams of skirt with stitching stitch. Discuss factor process of wool manufacture: sorting, scouring, oiling, carding, spinning.

Practise catch stitch on striped material. Apply to spread seams of skirt. Discuss weaving and finishing of woolen materials: fulling, teasling, shearing, tentering. Show material in which processes have been thoroughly carried out as eiderdown, broadcloth. Compare outing flannel with wool flannel; other teasled cotton fabrics as fleeced underwear and stockings.

Sixth Month.—Make hemmed placket with catch stitch. Gather with two threads and set into one side of band.

Examine samples of wool materials children bring from home, naming and discussing weave and finish.

Children turn hems in each others' skirts. Hem may be catch-stitched at home or at school as pick-up work. (See pages 11 and 12 Extension Circular No. 14.) Discuss methods of cleaning wools by brushing, airing, by use of soapbark and gasoline. Emphasize care necessary in laundering wools.

Seventh Month.—Practise making buttonholes. (See pages 17 and 18 of Extension Circular No. 14.) Discuss silk production; life cycle of worm. Show eggs, cocoon, chrysalis, if possible.

Apply buttonhole to skirt band. Sew on button. Discuss silk reeling, degumming, weighting.

Eighth Month.—Problem: Stocking darn. (See page 61 of Extension Circular No. 14.) Discuss knitting materials; why make warmer underwear than woven material; why woolen warmer than cotton, value of fleecing.

Collect and arrange materials for exhibit.

SEVENTH GRADE.—*Cooking and Food Economy.*—The aim of the work in foods for Seventh and Eighth year is:

First, to show the child the close connection between the proper kind of nourishment and health.

Second, to arrange the work that the knowledge obtained will carry over into the home.

Third, to teach the value of service in the home and from that point to the idea of service given the community.

Fourth, to help counteract the national weakness of the lack of food thrift due to an over-abundance of food supplies. To teach that waste means a woeful lack of sufficient nourishment for others less fortunate.

Fifth, to help in controlling the economic stress attending and following war conditions.

The proper nourishment of the child is quite essential to health. Health is necessary for school progress. Therefore it is most fitting that instruction be given in the schoolroom. The school lunch offers a fine point of approach. Materials brought from the children's homes can be utilized in teaching food facts and in contributing a hot dish to the cold lunch which often is an inadequate form of nourishment. Each child may bring a cup, plate, spoon and fork. A small sum of money will provide the necessary equipment. Parents will help in contributing

equipment if they are convinced that the health of the child will be benefited.

As to the time allotted for the work, lunch preparations may be started before school, or at recess time, and completed during the fore part of the noon period. Much may be accomplished in the practical work by planning to utilize spare moments and by fitting in lunch preparation with the more formal lessons. For discussion relative to problems, short periods may be used.

Regular cooking periods of ninety minutes' duration can be employed at times to advantage. Two successive days once a month will enable the use of left-overs from the previous lesson, and therefore are to be recommended rather than one lesson alternate weeks. Connect this work up closely with your physiology.

Alternation.—The seventh year's work in Household Arts should be studied the school year 1918-19 and each alternate year thereafter.

First Month.—Lunch at School: Discuss the reason for eating. Food for growth. Food for work and play. What the lunch box should contain. A lunch club at school. Plan equipment for serving simple school lunches.

Problems: Packing and scoring a box lunch. Cocoa or fruit beverage.

Lunch at School: Milk. Its value as a food. A good substitute for meat. The importance of clean milk. How clean milk may be obtained. The use and value of skimmed and sour milk.

Problems: Junket. Cottage cheese.

Second Month.—Lunch at School: Bread. What is good bread? Study the score card. The yeast plant an essential ingredient. Show the use and conditions of action by means of experiments.

Compare the home product with baker's bread as to labor and cost involved. Visit bakery if possible. Cleanliness in making and in handling bread.

Problem: Make bread.

Lunch at School: Bread continued. What is flour? Compare value of white flour, whole wheat, barley, rye and corn. Discuss the importance of cereals in feeding the world. The advantage of a bread machine.

Problems: Whole wheat, or white bread modified by other grains.

Third Month.—Lunch at School: The sandwich, a type of meal. Suitable sandwich fillings to make a complete food.

Problems: A bread contest. Make different sandwiches.

Lunch at School: Fruit. Value as a food in furnishing ash. The necessity of fresh fruit in the diet. Importance of planting fruit trees. Make a list by means of cook books of all the ways to use apples. Canned fruits an easy and palatable dessert.

Problems: Apple scallop. Variations of baked apples. Cranberry sauce for Thanksgiving.

Fourth Month.—Lunch at School: Fish. Fish an abundant source of food supply. Use fish as a meat substitute. Value and treatment of cold storage fish. The use of smoked and salt fish.

Problem: Salmon loaf. Creamed codfish or tuna on toast. Scalloped fish. Broiled smoked herring.

Christmas Lesson: Candy lesson. Danger of the sugar habit. Proper use of sugar and candy in connection with a meal.

Making Christmas happy for others.

Problems: Make taffy, peanut brittle, fudge for stockings or boxes for the less fortunate.

Fifth Month.—Helping at Home: The Home Supper. What is a meal? Light and heavy meals and when used. Some supper menus. The table. Table covering with reference to laundry work. Setting the table. Flowers on the table. Table china. Table manners. Give credit for home work.

Problem: Setting the table at some home. Waiting on the table with the idea of service to mother.

The Home Supper: How left-over food may be used for supper. The importance of making left-overs attractive and

palatable. Compute food loss to country if each family wastes one ounce daily. Teach waste is a crime.

Problems: Uses of stale bread. Scalloped meat, fish, or corn. Milk or cheese toast.

Sixth Month.—The Home Supper: The Potato. Value in the diet and the importance of an adequate supply. Potato clubs as a factor in production. Make a list of the many ways of serving potato to show variety. Economy in preparation. The loss in paring. Value and use of potato water.

Problems: Boiled, baked. Stuffed on half shell, scalloped.

The Home Supper: Uses of left-over potato. Emphasize the importance of thrift.

Clearing up the supper. Service involved in the process. Essential to home making, to health and happiness, and also affects the flavor of food. Ways of working. Washing dishes —scraping, piling, rinsing, drying, convenience of arrangement in cupboards. How to save dishes. Labor saving devices in connection with cleaning up. Disposal of kitchen waste.

Problems: Creamed potatoes. Warmed-over potatoes in tried-out fat, as in Hashed Browned. Potato salad.

Seventh Month.—The Home Supper: Cream soups. Review use of milk in the diet. Ways and means of thickening milk for soup. Show how left-over vegetables may be used in cream soups.

Problems: Cream of potato or vegetable soup.

The Home Supper: Beans. Compare the value and cost with milk, cheese, meat and eggs. Use in meals at least once weekly. Apply long, slow heat.

Tea: Effect on nervous system. Making to extract the least quantity of harmful material.

Problems: Baked beans. Boston Brown Bread. Tea for father and mother.

Eighth Month.—The Home Supper: Eggs. The wonderful value as shown by development of chick. Show how each constituent of the egg contributes to the forming of the chick. Compare food value at various prices with meat, fish, milk and cheese. How preserve eggs for time of scarcity. Make a list of ways of serving.

Problems: Soft cooked on toast. Scrambled. Omelets. Preserve eggs for winter use.

The Home Supper: Meal planning. Classify supper dishes

according to their use to the body. What foods enable growth and what furnish means for work and play. List food combinations. Compare costs of combinations.

Plan scheme of work for a home supper.

Problem: Serve supper at school or at home.

EIGHTH GRADE.—*Alternation.*—The eighth year's work in Household Arts should be studied the school year 1919-20 and each alternate year thereafter.

First Month.—Saving Food for Winter Use: Cause of spoiling food. How to prevent spoilage.

Show by experiments the action of bacteria, yeast and molds. Sterilization as a means of preservation. Form a school canning club.

Problem: Canning seasonable fruits and vegetables.

Saving Food for Winter Use—(Continued): Compare cost of home canned product with the commercial can.

Drying as a means of preserving food. Trenching and pitting fruits and vegetables for winter use.

Problem: Canning and drying fruits and vegetables.

Second Month.—The Home Breakfast: Review the work on meals of the previous year.

Breakfast Plans: Work and age a factor in eating. What should a school girl have for breakfast?

Cereals as a Breakfast Food: Review their composition and comparative value.

Importance of thorough cooking on digestibility. Serving cereal with top milk. Sugar disguises the fine flavor of the grain.

Problems: Oatmeal mush. Cornmeal mush in fireless cooker. Cream of Wheat with dates. Mold cereal with dates, figs, etc., to be used as a dessert. Mold left-over cereal for browning in drippings.

The Home Breakfast: Emphasize thrift. Importance of using all left-over bits of cooked cereal. Make a list of ways of using.

Fruit for Breakfast: Review value of fruit. Compare nutritive value and cost of fresh and dried fruits.

Problems: Brown left-over cereal. Make cereal griddle cakes. Steam rice with raisins. Stew prunes in fireless cooker.

Third Month.—Bread for Breakfast: Use of stale bread for toast. Muffins. A study of ingredients. Left-over cereal as an ingredient in muffins. Study the limited use of eggs in muffins. Use experiments to show the gas formed by baking powder. Butter an accompaniment to breakfast breads. Importance of butter to growth of the body. Butter substitutes. Value of margarine in reducing butter bill. Nuts as a form of fat. Gather nuts for winter use.

Problem: Toast. Muffins.

Bread for Breakfast—Biscuit: Continue the study of baking powder. Its composition and conditions affecting the formation of gas. Pastry flour in comparison with bread flour. Discuss varying proportions of shortening in relation to cost.

Coffee: Effect on the body. Method of preparing to cause least harm. Emphasize harmful effect on young people. Discuss coffee substitutes.

Problems: Biscuit. Drip coffee. Cereal coffee.

Fourth Month.—Plain Simple Breakfast Menus: Compute costs. Equipment of the kitchen for convenience in getting meals. Arrangement of sink, stove, refrigerator, supply and dish cupboards in relation to preparing and clearing away a meal.

Problems: Plans for getting home meals. Plans for kitchen arrangement.

The Home Dinner: Review work on food combinations. Make a list of good and poor dinner combinations. Discuss light dinners and heavy dinners. The relation of the dinner menu to the other meals of the day. The Christmas dinner. Decorating the Christmas table.

Problem: A fruit Christmas pudding. Plan for cooking Christmas dinner.

Fifth Month.—The Home Dinner: Meat. Its use as a food. How often shall meat be served. The cost of meat compared with its substitutes. The texture as affected by location of cut. By means of experiments show composition and effect of heat in retaining juices and the softening of connective tissue by moisture.

Problem: Broil chops or steak. Pot roast.

The Home Dinner: The use of trimmings of meat and left-

overs. Teach use in soup-making and in extending the flavor of meat in casserole cooking, croquettes, etc. Make a list of all the ways of using small amounts of cooked meats. The value of the fat. Way of trying out the fat. The cuts of meat. Visit market if possible. Cleanliness in buying meat.

Problems: Soup-making. Escalloped meat, or meat pie, or meat balls. Try out fat for use in cooking.

Sixth Month.—The Home Dinner: Poultry. The cost of poultry as compared with other meats. Demonstrate dressing a chicken. Teach use of bones in soup making, and chicken fat as a shortening in baking.

Problems: Broiled and Fricasseed Chicken.

The Home Dinner: Vegetables. The value of the ash content. Vegetables a source of fresh food. Economy in handling. Compute percent of waste in careful and careless peeling. Methods of cooking with reference to least waste of ash content. The use of vegetable stock in soups, sauces and gravies.

Problem: Mashed turnips. Escalloped cabbage. Lettuce salad. French dressing.

Seventh Month.—The Home Dinner: Desserts for dinner. Make a list of kinds of desserts. Light desserts and heavy desserts and when used. Starchy desserts. Review the effect of heat on starch in cereal lesson. Show by experiment the effect on flavor of the long cooking of cornstarch.

Problem: Chocolate Cornstarch Pudding. Creamy Rice Pudding. Baked Indian Pudding.

The Home Dinner—(Desserts continued): Fresh fruit and canned fruit as a dessert. The value of cream as a dessert adjunct. Gelatin desserts. Source of gelatin. Comparison with other building foods. Its value in combining with fruits, eggs, and whipped cream for dessert. Comparison with pastry as to digestibility and labor involved. Touch upon its use in combining with vegetables in salad form.

Problems: Plain Gelatin. Fruit Sponges. Bavarian Creams.

Eighth Month.—The Home from a Health Standpoint: What makes a healthful home? Necessity for cleanliness. Processes of cleaning with minimum amount of dust. How to get rid of household pests. Dangers of flies, roaches and mosquitoes to health of family. Sanitary arrangements in the disposal of household sewerage.

Problems: Clean schoolhouse and premises. Plan for home or school dinner.

Hospitality of the Home: The meaning of hospitality. Time for hospitality. Labor-saving devices as conservers of time and energy. Discuss systems of installing running water, disposal of household sewerage, use of steam cookers, fireless cooker, bread mixers, washing machines. Visit homes that contain labor-saving devices.

Problems: Entertaining parents. Serving a meal or refreshments.

In connection with the work in home economics, attention should be called to the chapter on Health and Physical Education in which problems of nutrition are discussed. In this chapter some good food habits are enumerated, and a sample menu for both summer and winter diet is suggested. Inasmuch as practically all of the work in home economics consists of projects, no special projects are outlined. There are no standardized tests for measuring results in this subject.

PROBLEMS

1. How may the work of home economics in the school be connected directly with the home?
2. Give the special advantages of hot lunches for rural schools.
3. Discuss the value of a cafeteria for a small town school.
4. What are the values of a school exhibit in home economics?
5. Make a list of the necessary equipment for teaching home economics in a rural or consolidated school.

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CHAPTER XVIII

HEALTH AND PHYSICAL EDUCATION

History.—Primitive man lived out of doors a larger portion of his time. His home, whether in cave, cliff, tree, tent, or even a bit later when made of logs, afforded ample opportunity for two of nature's most important health essentials,—sunlight and fresh air. In the selection of food, primitive man was guided almost altogether by instinct. Therefore, in normal conditions his food supply was well suited to his needs. Likewise, his clothing was well adapted to the climate and the season. Except in time of war or disaster, the primitive family secured the requisite amount of sleep for health and happiness. There were no distractions like the "movies" and the "joy ride" in the limousine to make life artificial.

Sometimes the conditions of life were hard, but the play, recreation, and game element in a very large way entered into work. As a matter of fact much of the work undertaken by primitive man was reinforced by the game spirit. Hunting, fishing, fighting,—all involved the contest which appealed to the various primitive instincts. As far down as the pastoral stage the care of the flocks and herds made demands on these instincts and therefore raised work somewhat above the level of complete drudgery.

As we have already indicated in another part of this book, the whole life of the Spartan was ordered by a complete physical efficiency standard. From the moment of birth until death, care of the body for state service was the thing of uppermost importance. Moreover, the rules applied to women as well as to men,—a thing that modern civilization is only beginning to learn. Exactly the same reasons obtained for the care and development of men and women. Every possible law or rule which modern science or modern society has evolved for the care of health and physical efficiency may find a historical counterpart in Spartan philosophy and practices.

The Athenians deified the body, and through games, sports, and plays of all sorts sought to make the body the most perfect and beautiful object in the world. No more elaborate scheme of physical training has ever been provided than that which the Greeks inaugurated to prepare contestants for the Olympian Games. And, even now, the Olympian Games, which are held in various parts of the world every four years, attract the attention of civilized nations, which send their finest specimens of physical manhood to compete in this historic international contest. It was thought by the Athenian Greeks that the body could be made the instrument of the intellectual life. Consequently, through the dance, pantomime, and other forms of physical control the body was given a careful training which has not been excelled by any other people in any age.

The Romans always prided themselves on the physical fitness and courage of the Roman soldier, and for mere

physical efficiency, courage and brute force the Roman gladiator, who fought and won or died in the Roman amphitheater, has possibly never been excelled. In theology there has always been some conflict concerning the status of human body. On the one hand there have been those who from the beginning regarded the human body as the occasion for sin, temptation, and death. On the other hand, others have regarded it as the finest thing in all God's creation, a very temple to be used as a dwelling place for an eternal spirit. This conflict was set in very sharp lines with the coming of Christianity. The followers of Christ interpreted his philosophy as a condemnation of the licentiousness and corruptness of the Roman civilization of the time. Inasmuch as the human body was the instrument of much perversion in this civilization, early Christian thought condemned it. Throughout the middle ages this point of view was expressed by the Monastics who endeavored in every possible way to minimize the importance of the human body. However, the Monastics knew the importance of physical exercise and care for the body in securing health. There was no work too menial for the monk to do. He felled the forest, dug up the stumps, drained the marshes, and did all sorts of tasks which would keep the body in condition. However, the game element was almost entirely wanting in this type of training.

On the other hand the medieval knight represented a very different sort of philosophy and training. The game element found ample means of gratification in the tournament or the crusade, and even the vows taken by the

knight constituted an exalted altruism calculated to make a man do his best.

In the early history of America the ascetic element, which was best expressed by the Puritan, prevailed. However, all pioneer life, whether in New England, the South, the Middle West, or the great West, afforded very large opportunity for conflict and conquest, in which all the instincts of primitive man may find gratification. But with the rapidly increasing population and the growth of cities, the natural opportunity for exercise and gratification of these fundamental instincts is greatly reduced. Life for millions of people becomes a mere humdrum automatism. We were shocked when the World War came to find so many men unfit for the hardships of war and if there had been any measuring of the physical efficiency of women, their condition would probably not have been any more reassuring.

Recently Dr. Thomas D. Wood, of Columbia University, stated that at the present time in America no fewer than fifteen million children of public school age have some sort of physical defect which requires immediate medical and dental attention. Where no special attention has been given to the problem, there is very little difference between conditions in the rural districts and those which are found in towns and cities. Of course in some of the large cities and in a few of the states where there has been considerable progress made in medical and dental inspections, as well as in nursing, the conditions are very much superior to those in the places where no such service has been rendered. As we think of this prob-

lem, we find ourselves asking, "What would it profit us to gain the whole world of knowledge, science, and wealth and lose health and the pleasure and happiness which comes from the feeling of physical fitness?"

HEALTH EDUCATION

Objectives.—The objectives for health and physical education almost state themselves, but in conformity to our plan and for the sake of clearness the following may be given:*

1. Vital Efficiency: health, physical development, freedom from correctible physical defects, grace and agility, motor control of various kinds, and general physical fitness.

2. Vocational Efficiency: industrial, agricultural, commercial, domestic and professional ability for varying groups and a general basis for all.

3. Avocational Efficiency: right use of leisure, living as a fine art, wholesome enjoyment and recreation, esthetic appreciation, and private and public avocations.

4. Civic Efficiency: citizenship in the community, state, nation, and world at large.

5. Moral Efficiency: ethical insight, skill, and responsiveness.

These five objectives may be realized in part by the following five methods: †

* "Sixteenth Year Book, National Society for the Study of Education," p. 177.
† *Ibid.*, p. 178.

1. Health Supervision: thorough examination, inspection, treatment, prevention and cure of the ailments and defects of children, both physical and mental.

2. School Sanitation: providing in all ways a healthful environment for children at school and elsewhere.

3. Physical Education: promoting all the general factors of social efficiency through motor activities of various kinds.

4. Teaching Hygiene: developing knowledge, habits, ideals, and appreciations in the direction of vital efficiency.

5. Hygienic Methods: guiding and directing children in such ways as to promote wholesome, healthy, happy living.

Course of Study.—A course of study for both health education and physical education is in the making: hence, anything which could be said about it at the present time is only tentative and suggestive. Notwithstanding this fact, we now know very well that health education must be included in the course of study, because health habits must be set up like any other habits. And it is well to remember that the pleasurable element in habit formation can be and should be exercised in setting up right health habits.

Grades One to Four.—In outlining a course of study, it seems better to group the lower grades.

Dr. Emerson says * that, reduced to their simplest terms, the essentials of health are as follows:

* "Nutrition and Growth in Children," pp. 63-64.

1. The removal of physical defects.
2. Sufficient home control to insure good food and health habits.
3. The prevention of over-fatigue.
4. Proper food at regular and sufficiently frequent intervals.
5. Fresh air by day and by night.

The rules of the health game have been given by the Bureau of Education in several of the recent *Health Bulletins*. They are as follows:

Rules of the Health Game

1. A full bath more than once a week.
2. Brushing the teeth at least once every day.
3. Sleeping long hours with windows open.
4. Drinking as much milk as possible, but no coffee or tea.
5. Eating some vegetables or fruit every day.
6. Drinking at least four glasses of water a day.
7. Playing part of every day out of doors.
8. A bowel movement every morning.

In any event the health problem involves a study of the problem of growth and nutrition, foods and diet, sleep, play and recreation. In *Bulletin No. 10* (Department of Interior, Bureau of Education, p. 24, on "Health Education") there is a good slogan: "Let us make health fashionable." It seems that this would make a most fitting rallying-cry in the campaign for health and physical education.

Standards for Growth.—The more important features of the problem of growth have been expressed in the following terms: (1) the relation of weight to height and age, (2) the annual gain in weight and height and the general appearance of the child. These standards for growth have been worked out in detail by the Child Health Organization of America. A number of other agencies have coöperated in the work in connection with the tables and the distribution of them. They are quoted on pages 312 and 313.

In some states these standards have been made the basis for various health crusades with markedly good results.

Diet for the School Child.—The last word in nutrition for children has probably been said by Dr. Emerson in his recent book, "Nutrition and Growth in Children," which is simple in style and scientific in fact, including in large measure a critical discussion of the old problems. The Federal Government has recently issued *Bulletin No. 2* on Health Education, entitled "Diet for the School Child," by Miss Lucy H. Gillett. In this excellent little bulletin seven "good food habits" are enumerated with appropriate comments. So far as we know now no better statement can be made of the food problem than this:

Good Food Habits.—The child is the adult of to-morrow. The kind of food a child has to-day determines to a considerable extent the fitness of the future citizen. Those who direct the feeding of the child have a responsibility which can not be overlooked. Good food habits should start to-day. To-morrow may be too late.

RIGHT WEIGHT FOR BOYS

About What a BOY Should Gain Each Month *

Age	
5 to 8	6 oz.
8 to 12	8 oz.
12 to 14	12 oz.
14 to 16	16 oz.
16 to 18	8 oz.

Height Inches	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years
39	35	36	37											
40	37	38	39											
41	39	40	41											
42	41	42	43	44										
43	43	44	45	46										
44	45	46	46	47										
45	47	47	48	48	49									
46	48	49	50	50	51									
47	...	51	52	52	53	54								
48	...	53	54	55	55	56	57							
49	...	55	56	57	58	58	59							
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CHILD HEALTH
Health in Education
Education in Health

* Weights and measures should be taken without shoes and in only the usual indoor clothes.

RIGHT WEIGHT FOR GIRLS

About What a GIRL Should Gain Each Month *

Age	
5 to 8	6 oz.
8 to 11	8 oz.
11 to 14	12 oz.
14 to 16	8 oz.
16 to 18	4 oz.

Height Inches	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years
39	34	35	36											
40	36	37	38											
41	38	39	40											
42	40	41	42	43										
43	42	42	43	44										
44	44	45	45	46										
45	46	47	47	48	49									
46	48	48	49	50	51									
47	...	49	50	51	52	53								
48	...	51	52	53	54	55	56							
49	...	53	54	55	56	57	58							
50	...	...	56	57	58	59	60	61						
51	...	...	59	60	61	62	63	64						
52	...	...	62	63	64	65	66	67						
53	...	...	...	66	67	68	68	69	70					
54	...	...	...	68	69	70	71	72	73					
55	...	...	...	...	72	73	74	75	76	77				
56	...	...	...	...	76	77	78	79	80	81				
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CHILD HEALTH
Health in Education
Education in Health

* Weights and measures should be taken without shoes and in only the usual indoor clothes.

1. Meals should be at the same hours each day. However, if the child gets very hungry two hours before the time for the next meal, he may be given a slice of bread and butter or a glass of milk. Do not give a child candy, fruit, nuts, cake, and cookies between meals.

2. Plenty of water should be given. Children as well as adults should drink plenty of water between meals. Water will often satisfy the craving which many mistake for hunger, but more than two glasses of water at any one meal should not be taken. Food should not be washed down with water during meals.

3. Children often have to be taught to like things which are good for them. Be patient and firm in teaching a child to like new foods. Begin by giving a small amount of a new food; give but one new food at a time, and serve it regularly until the child learns to like it.

4. Children should not be forced to eat when not hungry. Forced feeding causes more harm than light eating for a few days. If the appetite does not return, consult a physician.

5. They should be happy while eating. Let the meal-time be a joyous occasion, without undue excitement just before, during, or after eating.

6. Plenty of time should be allowed for meals. Insist on thorough chewing so that the stomach may not be overtaxed.

7. Dirt is dangerous. Children should have clean hands and faces while eating; they should sit down to a clean table and eat in an orderly manner. Flies should never be allowed to alight on food.

Moreover, in the closing pages of the same pamphlet are sample menus for a diet for a week for children between the ages of seven and twelve years for both summer and winter.

SAMPLE SUMMER DIET FOR A WEEK FOR CHILDREN 7 TO 12 YEARS

Breakfast:

Oatmeal, ½ to ¾ cup, with milk.
Fresh or stewed fruit, 2 to 3 teaspoonfuls.
Bread and butter, 2 to 3 slices.
Milk to drink, 1 glass.

Dinner:

Lamb stew, with vegetables, small portion.
Squash or string beans, 2 to 3 tablespoonfuls.
Bread and butter, 2 to 3 slices.
Cornstarch pudding, 2 tablespoonfuls.

Supper:

Creamed potatoes, 1 cup.
Brown bread and butter, 2 to 3 slices.
Stewed prunes, 4 to 5.
Milk to drink, 1 glass.

Breakfast:

Force or corn flakes, 1 cup, with milk.
Egg, soft cooked.
Brown bread and butter, 2 to 3 slices.
Milk to drink, 1 glass.

Dinner:

Chicken with rice, small portion.
Mashed potatoes, 2 to 3 tablespoonfuls.
Dandelion greens, or boiled onions, 2 to 3 tablespoonfuls.
Bread and butter, 2 to 3 slices.
Fresh or stewed fruit, 2 to 3 tablespoonfuls.

Supper:

Spinach soup with milk, 1 cup.
Corn bread and sirup, 2 to 3 pieces.
Cottage cheese, 1 tablespoonful.
Ginger cookies, 1.

Breakfast:

Hominy, ½ to ¾ cup, with milk.
Toast and butter, 2 to 3 slices.
Baked banana, 1.
Milk to drink, 1 glass.

Dinner:

Bacon, 1 slice.
Poached egg.
Spinach, 2 to 3 tablespoonfuls.
Spaghetti with tomatoes, 2 to 3 tablespoonfuls.
Bread and butter, 1 to 2 slices.

Supper:

Corn flakes, 1 to 2 cups, with milk.
Purée of lima beans, ⅔ cup, with milk.
Bread and butter, 2 to 3 slices.
Ginger cookies, 1 to 2.

Breakfast:

Corn meal, ½ to ¾ cup, with sirup.
Scrambled egg, 1.
Bread and butter, 2 to 3 slices.
Milk to drink, 1 glass.

Dinner:

Hamburg steak, 1 small ball.
Boiled potato.
New beets and beet-top greens, 2 to 3 tablespoonfuls.
Bread and butter, 2 to 3 slices.
Rice pudding, 1 to 2 tablespoonfuls.

Supper:

Milk toast.
Baked potato, 1.
Bread and butter, 2 to 3 slices.
Milk to drink, 1 glass.
Fresh or stewed fruit, 2 to 3 tablespoonfuls.

Breakfast:

Oatmeal, ½ to ¾ cup, with milk.
Corn bread and butter, 2 pieces.
Apple sauce or stewed pears, 2 to 3 tablespoonfuls.
Milk to drink, 1 glass.

Dinner:

Fish chowder, ¾ cup, or egg.
New beets, 2 to 3 tablespoonfuls.
Boiled potato.
Bread and butter, 2 to 3 slices.
Custard or junket, ½ cup.

Supper:

Shredded wheat, with milk.
Squash or chard, 2 to 3 tablespoonfuls.
Stewed fruit, 2 to 4 tablespoonfuls.
Bread and butter, 2 slices.
Milk to drink, 1 glass.
Plain cookies. 1.

Breakfast:

Force or corn flakes, 1 to 2 cups, with milk.
Corn bread and butter, 2 to 3 slices.
Milk to drink, 1 glass.

Dinner:

Lamb hash, small portion.
String beans, 2 tablespoonfuls.
Bread and butter, 2 to 3 slices.
Apple sauce, 2 to 4 tablespoonfuls.

Supper:

Rice and milk, ⅔ cup.
Brown bread and butter, 2 slices.
Ginger cookies, 1 to 2.
Milk to drink, 1 glass.
Custard, ½ cup.

Breakfast:

Rice, ½ cup, with milk.
Bread and butter, 2 to 3 slices.
Fresh or stewed fruit, 2 to 3 tablespoonfuls.
Milk to drink, 1 glass.

Dinner:

Dried pea or bean soup, 1 cup.
Greens, 2 to 3 tablespoonfuls.
Baked potato.
Bread and butter, 2 to 3 slices.
Ice cream or fruit sherbet, 2 tablespoonfuls.

Supper:

Baked potato, 1.
Poached egg on toast, 1.
Stewed prunes, 4 to 5.
Plain cookies, 1 to 2.
Milk, 1 glass.

For the younger children use more milk and less meat.

SAMPLE WINTER DIET FOR A WEEK FOR CHILDREN 7 TO 12 YEARS

Breakfast:

Oatmeal, ⅔ cup, with milk.
Bread and butter, 2 to 3 slices.
Baked apple, 1.
Milk to drink, 1 glass.

Dinner:

Roast lamb, small slice; baked potatoes.
Beets, onions, or oyster plant, 2 to 3 tablespoonfuls.
Bread and butter, 2 to 3 slices.
Rice pudding, 2 to 3 tablespoonfuls.

Supper:

Scrambled egg, 1.
Bread and butter, 2 to 3 slices.
Oatmeal cookies, 1 to 2.
Milk to drink, 1 glass.

Breakfast:

Hominy, ⅔ cup, with milk.
Bread and butter, 2 to 3 slices.
Bacon, 1 slice.
Cocoa with milk, 1 cup.

Dinner:

Vegetable soup, with carrots, beans, onions, 1 cup.
Spinach with poached egg.*
Corn bread and butter, 2 to 3 slices.
Dates, 4 to 5.

Supper:

Baked potato, 1.
Bread and butter, 2 to 3 slices.
Stewed apricots, 2 to 3 tablespoonfuls.
Cottage cheese,* tablespoonful.

Breakfast:

Corn meal, ½ to ⅔ cup, with milk.
Toast and butter, 2 to 3 slices.
Orange.
Milk to drink, 1 glass.

* Toward spring, when eggs are abundant, they may be given more frequently, replacing some meat. Cottage cheese should be made at home or only the best grade purchased. It should be used only when fresh.

Dinner:

Rice and meat loaf, small portion.
Stewed tomatoes, 2 to 3 tablespoonfuls.
Bread and butter, 2 to 3 slices.
Baked Indian pudding, 2 tablespoonfuls.

Supper:

Rice and milk, ½ cup.
Creamed carrots or celery.
Fruit cookies, 1 to 2.
Bread and butter, 3 to 4 slices.

Breakfast:

Oatmeal, ⅔ cup, with milk.
Bread and butter, 2 to 3 slices.
Stewed prunes or figs, 3 to 4.
Cocoa with milk, 1 cup.

Dinner:

Beef stew with vegetables, small portion.
Bread and butter, 3 to 4 slices.
Rice pudding or custard, 2 to 3 tablespoonfuls.

Supper:

Corn bread with sirup, 2 to 3 pieces.
Macaroni, with tomatoes, 2 to 3 tablespoonfuls.
Bread, 2 to 3 slices, and peanut butter, ½ tablespoonful.
Cocoa with milk, 1 cup.

Breakfast:

Force or corn flakes, 1 to 2 cups, and milk.
Bread and butter, 2 to 3 slices.
Bacon, 1 slice.
Milk to drink, 1 glass.

Dinner:

Chicken, small slice.
Mashed potatoes, 2 to 3 tablespoonfuls.
Creamed carrots or onions, 2 to 3 tablespoonfuls.
Bread and Butter, 2 to 3 slices.
Ginger bread, 1 small piece, with thin cream.
Milk, 1 glass.

Supper:

Milk toast, 2 to 3 slices.
Cottage cheese, 1 tablespoonful.
Stewed prunes, 4 to 5.
Cookies.

Breakfast:

Pettijohn or malt breakfast food, ⅔ cup, with milk.
Bread and butter, 2 to 3 slices.
Soft egg.
Milk to drink, 1 glass.

Dinner:

Creamed or fresh broiled fish, small portion.
Baked sweet potato, 1.
Bread and butter, 2 to 3 slices.
Baked apple, 1.

Supper:

Spinach or bean soup, 1 cup.
Baked potato, 1.
Corn bread and butter, 2 pieces.
Milk to drink, 1 glass.

Breakfast:

Corn meal, ⅔ cup, and milk.
Toast and butter, 2 to 3 slices.
Orange.
Cocoa with milk, 1 cup.

Dinner:

Lamb stew with vegetables, small portion.
Boiled potato, 1.
Bread and butter, 2 to 3 slices.
Bread or rice pudding, 2 to 3 tablespoonfuls.

Supper:

Celery soup with milk, 1 cup.
Bread and butter, 2 to 3 slices.
Custard or junket, ½ cup.
Ginger cookies, 1 to 2.

Dr. Emerson gives a most interesting discussion of the topic, "Measured Feeding," * in which tables, charts, and diagrams are used to describe with scientific accuracy the good values of various articles of diet.

Sleep for the School Child.—Dr. T. D. Wood proposes the following sleep requirements for children of school age.†

Hours of Sleep for Different Ages

Age.	*Hours of Sleep.*
5 to 6	13
6 to 8	12
8 to 10	11½
10 to 12	11
12 to 14	10½
14 to 16	10
16 to 18	9½

In general outline, the work should include the following:

* "Nutrition and Growth in Children," pp. 89-106.
† "Health Essentials for Rural School Children," p. 25.

1. Careful measuring and weighing of all children at the opening of each term.

2. Weighing each month and recording the weights on the chart, and measuring twice a year.

3. Daily inspection by the teacher or nurse for incipient diseases of any kind.

4. Complete medical and dental inspection at the beginning of each year.

5. The teaching of the eight health rules quoted above.

6. Daily morning inspection of children for symptoms of diseases, noting whether they are observing the rules about cleanliness.

7. The positive correlation of health problems with all other subjects of the elementary curriculum, especially such subjects as music, language, drawing, manual training, civics, geography, and formal instruction in physiology. This problem has been treated in a special manner by Dr. Payne in "Education in Health." *

Projects.—1. A health crusade club may be organized in the third or fourth grade.

2. A number of health plays are available for these grades.

3. The making of health posters for a poster display or contest furnishes good projects for the third and fourth grades.

Grade Five.—In grade five the health rules and daily inspection should be continued. If possible get them on a competitive basis. Additional subjects may be taken up in connection with the care of the body, hair, skin,

* Payne and others, "Education in Health."

nails, eyes, and ears. Some special attention may be given to posture in this grade.

Projects.—1. The making of posters may still be continued as a good project involving new problems.

2. The collection of pictures to illustrate the kinds of foods to be eaten, with their calory value measured.

3. A collection of "My vegetable or fruit friends" will make a project.

4. So will "First aid to the injured."

Grade Six.—Find new ways to stress the health rules. Inasmuch as the gregarious instincts are coming into play at the beginning of the sixth grade, make use of these capacities in various organizations to further the health game. One method is to divide the children into groups and allow them to select leaders to weigh and measure them and to test their eyes and ears. If the selection of the leader is put on a competitive basis, it will add zest to the play. Additional topics calling for "first aid" may be added, and a survey of the problems of the development of bone and muscle will make new studies in physiology.

Projects.—1. Study food inspection, beginning with local organizations and including state and federal pure-food laws.

2. Girls may be permitted to make out sample menus for a day or a week.

Grades Seven and Eight.—*Projects.*—Group work in the seventh and eighth grades should be stressed in every possible way, for here the social instincts are coming into marked prominence. The work should be done chiefly

in connection with the organization of health and civic clubs of various kinds.

A very close correlation between the work here and the topics in history, geography, nature study, and agriculture should be obtained. Attention is directed to the projects listed under history and geography.

The work in drawing might include a poster contest.

One health playlet written either by the children or by some one else should be given some time during the year in finished style.

There are numerous new texts in physiology and hygiene which emphasize in some measure the point of view expressed here and doubtless such a book would be required.

Measuring Results.—1. By the close of the eighth year of school life every boy and girl should have a fairly good knowledge of his bodily functions and an appreciation of what is necessary to be a good physical machine.

2. The eight rules of the health game should be completely automatized.

3. Allowing for individual differences, the standards expressed in height and weight tables should be approximated.

4. Habits of play and recreation should be set up which will continue for a lifetime.

5. In a word the objectives which were enumerated at the outset should be realized in such a way as to be obvious to the child.

6. The daily inspection, mentioned in a previous paragraph, to discover symptoms of common diseases

and observe the health conditions of the children should be continued through the grammar grades.

PROBLEMS

1. Should there be standards for promotion and graduation in health as in any other school subject?
2. How may the school program supply the right kind of health teaching to those children whose homes do not coöperate in the matter?
3. May the teaching of health be connected with good citizenship?
4. What school equipment is necessary for the teaching of health education?
5. Enumerate the instincts of the adolescent boy and girl which may be utilized in the teaching of correct health habits.
6. Will you as a teacher take up the pioneer spirit and do your bit in health teaching?

REFERENCES

Bureau of Education: Health Education Series. Bulletin 1-10. (Bulletin No. 10 is most important.)
Emerson: *Nutrition and Growth in Children.*
Hoag: *The Health Index of Children.*
Wood: *Health Essentials for Rural School Children.*
Payne: *Education in Health.*

PHYSICAL EDUCATION

In the strict construction of the term, physical education should undoubtedly include health education. However, because of lack of suitable organization and appropriate logical arrangement of material, we have followed the conventional form of handling health educa-

tion in one section and physical education in another. However, it may be observed that the historical part of this discussion was treated as a unit.

Objectives.—The special objectives to be urged for physical education are as follows:*

1 To promote health, bodily resistance, and physical endurance.

2. To promote alert, accurate, and graceful movements.

3. To promote good posture in and out of school.

4. To promote recreation that can be carried out into "life."

5. To promote good mental work in the school.

6. To promote, through practice, knowledge, habits, and aspirations more or less directly related to vital and avocational efficiency and, if possible, to the other great aims.

7. To attract adults to the schools and promote community ideals and practice of physical education.

When we consider the statement of these objectives and take into account the previous discussion of health education, we can understand that health and efficiency do not mean merely freedom from ailments or even sufficient vigor for our daily tasks, but, "Health means the possession of a reserve force of strength and energy." † The same author in defining reserve force says that it

* "Sixteenth Year Book, National Society for the Study of Education." Part I, p. 179.

† *Health Bulletin, No. 6*, Department of Interior, Bureau of Education, p. 2.

means such reserve energy as will enable the person to meet the great emergencies which may arise in every life. Moreover, it is the physical capital which constitutes so large a factor in personal success in every department of life.

Preëminently, childhood is the time to store up the potential energies which are to be the basis for this reserve. Undoubtedly the time for laying the basis for an efficient circulatory, respiratory, nervous, and digestive system is in childhood. The power of these vital functions determines our working efficiency.

The sources producing this have been defined by Rapeer somewhat as follows: *

1. Free supervised play, including dancing.
2. Free and supervised athletics.
3. Boy Scouts, Camp Fire Girls and other similar activities.
4. Wholesome motor activity in connection with school and other work, activities of many kinds.
5. Handicrafts and other similar physical avocations.
6. Formal physical training or gymnastics in the narrow sense.
7. Orthopedic, therapeutic, or medical gymnastics.
8. School excursions, tramps, and hikes.
9. School dramatics and posturing.

The following types of physical education and training are considered essential and minimal by Rapeer.†

* *Ibid.*, p. 179.
† *Ibid.*, pp. 183-184.

1. Free play in classroom, play-room, gymnasium, and playground.

2. A Boy Scout organization and Camp Fire Girl or Girl Scout organization in practically every elementary school with more than four pupils of each sex above the age of nine.

3. Inter-recitation recreation, relaxation, breathing, posture, and light calisthenic exercises at least once each hour,—not less than two minutes in duration, not counting recesses or dismissals, but counting fire-drills. This is less important when non-sedentary activities have been carried on, such as manual training, gardening and domestic science.

4. Physical training exercises of a more formal character; for the ordinary school not less than ten minutes a day. Longer periods are desirable where there are gymnasiums, probably at least one hour a day.

a. Good posture in standing, walking and marching.

b. Vigorous trunk exercises combined with simple arm and leg movements.

c. Rhythmic steps of medium difficulty executed with good form.

d. Simple exercises on two pieces of gymnasium apparatus.

e. Age aims as indicated by the health chart.

5. Folk and gymnastic dancing, rhythmic games, at least ten minutes a week.

6. Walking, "tramps," and excursions,—by groups, classes, sexes, or entire school,—at least three of not less

than a half-mile, each half-year, for all children able to walk.

7. Gardening, caring for animals, home chores, manual and other physical work. Certain school credit might be given for outside physical activities of a desirable character. School recognition may also be given to attainment of certain physical standards such as freedom from correctible physical defects and preventable ailments, for meeting or surpassing the standard tests, and for grace, posture and physical fortitude.

There are almost any number of games, plays and problems which might be outlined for the grades. For the first two grades there is nothing to be compared to Stecher's "A Handbook of Lessons in Physical Training and Games." This book should be in the hands of every primary teacher. However, selecting from it and other sources, Rapeer * enumerated lists of plays and games for the grades as follows:

(Games marked (R) may be played in the schoolroom.)

Grade One

Cat and Mouse.
Hand Tag (R).
Running Races (over short distances).
Squat Tag (R).
Follow the Leader (R).
Long Jumping Rope (R).
Skip Tag (R).

Ball Games

Bean Bags (R).
(a) Toss Up and Catch.
(b) Toss to a Partner.
(c) Combine a and b
(d) Teacher's Ball.
Bound Ball (R).

* *Ibid.*, pp. 184-185.

Grade Two

All of the games of grade one may be played.

Cat and Mouse, in two concentric circles.
Cat and Mouse, with two cats.
Change Tag.
Catch Me.
Spin the Plate, or Catch the Wands (R).
Jacob, Where Are You? (R).
Long Jumping Rope (R).
Jump Over the Seats (R).

Ball Games

Increase the difficulty of games of Grade I by greater distances; by designating the hand clapping once (or oftener) before a bag is caught.
Toss the bag for height.
Toss through a Bag-board (R).
Bag in the Ring (R).
Dodge-ball, with one foot in a circle (R).

Grade Three

All the games of grades 1 and 2 may be played.

Potato Race, Planting and Picking.
Running and Hopping Races.
Third Tag and Run.
Pussy Wants a Corner.
The Beetle Is Out.
Fox and Chickens.
Pass the Bean Bag. (Relay).

Ball Games

Play the ball games of the preceding grades with a large gas ball, an indoor baseball, or a basketball.
Duck-stone (with bean bags), (R).
Guess Who? (R).

Grade Four

The games of grade three may be played.

Day or Night.
Black Man.
Break Through (Bear in the Ring).
Lame Goose.
Catch the Wand (or Spin the Plate), (R).
Girls: Jumping Rope.
Boys: Leap Frog.
Foot in the Ring.
Wrestle for the Wand.

Ball Games

Play the ball games of grade three with a small soft rubber or a tennis ball.
Throw for height and distance.
Toss up (name the catcher).
End ball.

Grade Five

The new games of grade four may be played.

Relay Race.
Three Deep.
Poison.
Jumping Circle.
Girls: Jumping Rope.
Grace Hoops.
Rubber Quoits.
Boys: Rooster Fight.
Quoits.

Ball Games

Girls and Boys: Bat ball with a volleyball or a light basketball.
Corner ball.

Grade Six

Rabbits, two hunters on a line.
Relay Race.
Three Deep.
Catch the Robber.
Poison.

Ball Games

Baseball.
Captain ball.
Volley ball.
Battle Ball.
Soccer football.

It is obvious that no special list of projects should be enumerated for this work, because every game is a real project to the child.

Measuring Results.—According to Rapeer * the following tentative classification may be regarded as a method of measuring results in health and physical education:

1. Children should be free from serious ailments and defects.

2. In the matter of weight, height, chest expansion, lung capacity, and combination of these, pupils should be up to standard.

3. The circulatory system should be normal as expressed in terms of pulse and blood pressure.

* *Ibid.*, p. 186.

4. Inasmuch as we do not treat mind and body separately, normal children should approach the intellectual standards set for their ages.

5. Children should approach the physiological age-standards which have been quoted in connection with the part of the chapter on health.

6. There are no absolute standards for the various types of skill for ability, especially athletics; yet children at the completion of the eighth grade should show a knowledge of the common games and have some ability to participate in them.

PROBLEMS

1. Of what importance is physical education in the elementary school?
2. Why is it so important to stress the care of teeth for small children?
3. How do you account for the fact that physical education has been so long neglected in the elementary school?
4. Relate the problems of physical education directly to the five big aims for the elementary school.
5. Weigh and measure the children in your schoolroom.
6. Describe "first aid" in the case of fainting, excessive bleeding, and bee-sting.

REFERENCES

Stecher: *Hand Book of Lessons in Physical Training and Games.*
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CHAPTER XIX

MORAL EDUCATION

History.—Moral and civic training have always been important factors in the process of education. They concern the habit-formation, the ideals, and the institutions by which one generation has passed on to the next the important controls by which civilization is to be perpetuated. Monroe quotes the following sentence from one of the Confucian texts: * "What heaven has conferred is called nature; an accordance with nature is called the path of duty; the regulation of this path is called instruction." Concerning the importance of this statement, Professor Monroe says the whole purpose of education is to *train* each individual in this path of duty wherein is prescribed every detail of life's occupation and relation. In fact this philosophy controlled the entire scheme of Chinese life until the recent upheaval in the great Empire. One more quotation to show how completely the life of the Chinese boy was controlled in every detail by the Confucian Text may be in point.†

"The sovereign and king orders the chief minister to send down his (lesson of) virtue to the millions of the people.

* "Text Book in the History of Education," p. 17.
† *Ibid.*, pp. 20-21.

"Sons, in serving their parents, on the first crowing of the cock, should all wash their hands, and rinse their mouths, comb their hair, draw over it the covering of silk, fix this with the hairpin, bind the hair at the roots with the fillet, brush the dust from that which is left free, and then put on their caps, leaving the ends of the strings hanging down. They should then put on their squarely-made black jackets, knee covers, and girdles, fixing in the last their tablets. From the left and right of the girdle they should hang their articles for use: on the left side, the duster and handkerchief, the knife and whetstone, the small spike and the metal speculum for getting fire from the sun; on the right, the archer's thimble for the thumb and the armlet, the tube for writing instruments, the knife case, the larger spike, and the borer for getting fire from wood. They should put on their leggings and adjust their shoe strings."

A similar quotation might be given to show the nature of the training of women. However, the above is sufficient to indicate the method of moral control. One interesting fact to be observed in connection with this scheme is that the people had nothing to do with it. The rules and regulations of all kinds were handed down directly by the sovereign. Another interesting fact is that the subject matter for all forms of education, elementary and higher, was literary in nature, and the nine classics constituted the sole curriculum. The family was the basic institution for the giving of this training, while the state held control by means of a rigid examination system.

The Hebrew method was similar to that of the Chinese. It probably had a more marked religious character. The education in India rested on the same basis. It was primarily a habit-formation scheme to fit into and preserve a cast system which was imposed by religion.

Another educational system of the same kind which worked efficiently was that of the Spartans. Here we have a complete scheme essentially socialistic in character in which the state provided and controlled everything to subserve its own ends. Sometimes the historians have described in glowing terms the bravery and valor of the Spartans at Thermopylæ. As a matter of fact the Spartan soldier had been trained in the minutest detail so that he could fight at Thermopylæ or on some other famous field. His training had been provided for by the state for a period of no less than twenty years. The aim of the early Spartan education was to develop in the individual physical perfection, courage, and habits of complete obedience to the law, so that he would be of the greatest service to the state.

There is no finer example in all history of moral *training* than the case of the Spartan. The ideational element was reduced to the minimum. However, it was present in some small degree. The young Spartan was attached or apprenticed to some full-grown Spartan soldier who looked after his training. And while the law of imitation was most important, the boy did have some slight discrimination to make in evaluating the conduct of the citizens.

In a large measure the early Athenian scheme was

under the control of the state too. Professor Monroe says concerning the Athenian education,* "The gymnastic education was designed to produce certain moral results, such as control of temper and the general subjection of the passions to reason; that through this training, patience, endurance, fortitude, courage, loyalty, devotion, and a consideration for the rights of others were to be developed."

The end to be secured through the elaborate literary curriculum which included history, language, religion, and philosophy was virtue. The Athenian boy also had a living model in the person of his teacher. No more elaborate provision has ever been made by any people for motor activity and physical perfection. This was provided through the dance, races, wrestling, jumping, throwing the discus and the javelin.

Although habit-formation may be regarded as the basis of Athenian education, there was much room for the ideational element, which on the whole was quite definite and concrete in its nature. Reflective thinking was encouraged by such questions as these: "Who was the best man in the city?" or "Who was a good citizen?"

It should be observed that both the Athenian and the Spartan civilization served in a very effective way their purpose. Taking into account the stage of civilization, the world never saw a more perfect machine than the Spartan soldier and the Athenian citizen of the early period has been pointed to as an ideal. There was in his training enough of the rational element coupled with

* *Ibid.*, p. 97.

habit-formation to enable him to meet all of his responsibilities as a citizen of Athens. But the scheme broke down immediately after the Græco-Persian War, when Athens had to adapt her civilization to thousands of alien peoples who were totally unprepared to understand Athenian ideals and institutions. One generation was all that was necessary to end the Athenian supremacy; likewise, only one generation was necessary to conclude Spartan supremacy. No system of education or control had been developed to perpetuate this wonderful civilization which had produced the finest in literature, art, science, and philosophy.

The Romans added nothing new to educational theory and practice. The early periods in Roman history followed the traditional scheme of habit-formation in military and civic training. The Roman boy was trained very concretely in the virtues necessary for the Roman soldier and the Roman citizen in the "comitia" and in the forum. Rome, however, attempted to appropriate Grecian idealism and was successful in evolving an elaborate system of jurisprudence for developing the most wonderful governmental organization which the world had known. In these adaptations, however, Roman character broke down completely, because there was no arrangement whereby the old virtues, which were the product of the early Roman habit-formation stage, were perpetuated. The thousands of barbarians from the North, who were coming down into Rome, could not understand the significance of the institutions which had been developed out of the idealism of the Greeks.

Through the middle ages all education rested on two disciplinary and habit-formation schemes. One was Monasticism, which religion developed, and the other was feudalistic organization with knighthood as its flower. Feudalism was another habit-formation system which kept the values of physical culture from being completely lost in the wake of the discipline and self-abnegatism of the monk.

The modern German Empire, which so recently has been destroyed, presents another good example of habit-formation in moral training. All the needs, vocations, professions, and cultures were provided for through state agencies in the Prussian scheme of education. From the chimney-sweep to the chancellor it may be said that every possible contingency had been provided for by the benevolent despotism. Some exceptions should, of course, be made to these statements. In the case of the University some measure of intellectual freedom was allowed. However, when the great Herbart desired to succeed Hegel as professor of philosophy in the University of Berlin, he could not do so because he had commended the schools and the civilization of the United States and was generally too liberal in his thinking.

In very brief outline we have called attention to some of the outstanding examples of moral training in connection with the great historic nations. It may be observed now that these fall under two generals heads; first, training at the habit-formation level, under the patronage and control of religion, such systems as that of the Chinese and the Hebrews, and Monasticism typi-

fying this form of control. The other form is that of habit-formation under the immediate control of the state, Sparta being the best example in ancient history and Persia a good second. The Athenian system may be classed in this type of control, for at first it involved mainly habit-formation. Later under state guidance and control, the complete freedom of the individual was proposed, though never completely realized in educational practice. Germany may be cited as the best modern example of a state-controlled, habit-formation scheme. In the British Isles there has been much room for freedom and local initiative. The United States represents more completely than any other nation the attempt to make education minister to the individual needs of all the people. Has this been done? Can it be done? Moreover, what have we to learn from the examples in history which have been cited? In answering these questions it is well to remember that since 1900 the United States has become a world power, and that nearly twenty millions of people from foreign countries have become actual or temporary citizens of the Republic. Large numbers of them come from countries in which the ideals and habits, which have controlled the great American democracy, have been practically unknown. They have come, knowing little of our institutions and sometimes caring less. The Greeks in the Golden Age could not solve such a problem. The Romans in the Augustan Age practically failed to solve the same problem. How shall we solve it? is a question which comes over and

over again to the thoughtful school man and to the patriotic, God-fearing American.

Objectives.—1. An appreciation of the moral values which the race has achieved for the happiness and well-being of individuals and the preservation of our fundamental institutions. It is readily observed that this is primarily an ideational process. It may be said that the whole purpose of education is moral in the largest and best sense.

2. The formation of such habits of conduct as will insure the right reactions of these ideals.

3. Such education as will enable the members of society to meet the twentieth-century situation or new situations in an intelligent manner.

4. Moral education, including (1) appropriate training, should be of such a nature as to insure for the members of society an appropriate use of leisure time. The object of moral education and training is to make secure those institutions which we have discovered to be necessary for civilized society. (2) The safety of life and property depends upon obedience to law. (3) A moral man must obey the law though he may not believe it is just. One of the most difficult problems for the American democracy is to secure obedience to law and constituted authority. This may be observed in connection with the enforcement of the eighteenth amendment, obedience to traffic regulations in cities, and the enforcement of the game laws.

(4) Monogamy has proved to be the best basis for the

preservation of the home. The sacredness of marriage should be understood and appreciated to the extent that the marriage contract will not be entered into without an understanding and an appreciation of its meaning. This is fundamental in order that unhappy marriages may be reduced to the minimum and that the family may be preserved in its sacredness and efficiency. The school is undoubtedly the most important institution which society has organized for the purpose of realizing the objectives enumerated above. It is not the only institution concerned in the realization of these objectives, but it is the first obligation of the school to do all it can to bring about their realization. To fulfil this mission and to meet the demands of our complex life the elementary school needs much reorganization of a dynamic character.

Guiding Principles.—There are some guiding principles which will be stated in order that the problem may be seen more readily.

1. Moral education and moral training will have to be something more than an incidental fringe on the educational fabric. A *laissez-faire* policy is totally inadequate for a modern situation.

2. Moral education, as such, cannot possibly be realized in teaching by precept or by some code of ethics alone. Such a practice rests on an antiquated faculty psychology which has been discounted continually in this book. As a matter of fact we know very well that it is possible to know word for word all of the decalog and at the same time not to obey any of its principles.

3. We must recognize the problem as an adequate coördination of ideals and habit-formation situations in such a way as to make possible the realization of present-day moral values in terms of every-day life and at the same time leave enough freedom for adaptation to new situations which arise constantly.

4. It must be recognized fully that there are great individual differences among children, and the methods of instruction in all subjects need to take into account the fact that they are to be moral. It is manifestly unfair to expect the same performance from all children. This has constituted one of the most directly immoral situations in our instruction. Now we know perfectly well that of two children in the same grade, of the same age, and to all casual appearance, of the same ability, one may have ten times the ability to do the task that the other has. To demand of both of them the same achievement would be manifestly absurd. This has caused many forms of lying, stealing and cheating.

5. We need to recognize that we must use the same standards for all situations, not one for the home, church, or business, and another for the school. The same values must be recognized as vital, real, and positive for all human inter-relationships. For all men and women alike, the school must cease to be only a place to "study and recite." The studies and the recitations will not be abandoned, but they must be made to furnish the basis on which we are correlating our ideals and our practice.

6. We must understand more fully than we do now that work has much to do with the making of character.

Vocational guidance and education must, therefore, be considered as vital in the formation of moral character.

7. Our modern democracy will not tolerate any moral educational scheme which is based only on habit-formations. We could not use the very effective schemes employed by China, or modern Germany. Such would be characterized immediately as tyranny of the worst sort. We cannot go on assuming, as has been done for the last twenty years, that knowledge will result in virtue. The Athenians showed conclusively the absurdity of that.

It is all nonsense to sigh for the good old pioneer days of authority in moral education, either of the state or of the church. There will be no such resurrection. Instead we need to look forward to a well-balanced moral education involving the best ideals of the race incorporated in the lives of free men.

Moral Situations in the School.—The moral situations of the school are numerous and profoundly important. Some of the more significant ones are as follows: 1. School government or discipline is primarily for the purpose of moral training. Likewise, the major function of all sorts of school organizations, clubs, and so on, is moral.

2. The course of study is first of all a product of the race experience, and from it in large measure we have to find the ideals which are to be preserved. History, literature, geography, and arithmetic are especially fruitful in the formation of right ideals. Manual training, drawing, music, home economics, health, and physical

education are especially rich in habit-formation situations.

3. One of the special features of this treatise is that everywhere we have emphasized games, projects, and dramatizations, to bring in the largest number of life situations possible.

4. Every class exercise presents specialized moral situations which need to be recognized mostly by the teacher, directly and indirectly for the child; the thoroughness with which the work is prepared; the spirit in which the class is operated; and the good-will and fellowship manifested are all connected with moral values.

5. Continually throughout the text our methodology provides for appealing to the native instincts, capacities, and interests of normal children.

6. The statement of the main objectives in the opening chapter of this book was made primarily in terms of moral welfare, and the realization of these objectives will culminate in a moral individual of a modern type.

Course of Study.—Obviously, from all that we have said in presenting the history, objectives, and principles of moral education, the course inculcating moral training is the whole school with its activities, objectives, and practices. And there can be no final course of study outlined by grades for purposes of moral education. To do this would be to resort to a method which has already been condemned. To say nothing about a course of study might be to leave the problem to incidental or accidental instruction. Therefore, it seems appropriate

to emphasize certain features of the curriculum as we have already outlined it. For additional material we may suggest a few more projects or games.

GRADES ONE TO FOUR.—As we have noted in another place, the essential feature of a project is that it appeals immediately to some live situation. Moreover, there are always some fundamental instincts to which we may appeal in order to carry out the project. Among these instincts we may mention the desire to possess, to construct, to entertain, to help others, to protect others, to carry on competitions with others, and to stand well in the estimation of one's fellows. In the projects listed for these early grades these instincts may be utilized.

One especially suitable for the first grade is to make Christmas presents for poor children. The work consists of making toys such as the animals for Noah's Ark and possibly the Ark itself. There are numerous projects in connection with health programs which we have already outlined.

From the health programs and the plays and games outlined for the second grade, an elaborate moral program could be derived. Branom suggests * the making of a story or picture book to be donated to the first grade library table. The moral aspect of this, of course, is to be found not only in the work but in the fact that it is to be given to somebody else.

A special project for the third grade has been suggested as "making the school garden pay." Branom reports an interesting experiment made by Miss Burk, of Cleve-

* "Teaching the Project Method in Education," pp. 50-60.

land, Ohio.* Some other projects are: formation of the health club, doing something for a sick classmate.

In grade four the pupils may be allowed to make books involving the industries of the community. These may be illustrated with charts, maps, pictures, and diagrams. After they have been completed they may be loaned or shown to other children in the lower or upper grades. Some other suitable projects are the writing of a local history, or the putting on of a Columbus Day celebration or a health play.

Grade Five.—A picture museum may be used as a project for the fifth grade. This presents a number of special appeals to the instinctive capacities of children. A collection and classification of the material, and cases or boxes for suitable preservation of it may be made. See the other subjects for additional projects and games. By the time children reach the fifth grade they should begin to appreciate the value of the rules which are necessary in playing all sorts of games. The spirit of fair play, of loyalty to one's side, respect for those who umpire or help to administer the games, learning to be a good sport, learning to do one's best even though one's team is losing, learning to keep from being a "piker" or a "knocker," are of primary moral value. Of course these statements not only apply to the fifth grade but should apply throughout the remaining grades of the school.

Grade Six.—A special project for the sixth grade is conducting a real library. It may be carried on as follows: An organization, consisting of the librarian, assist-

* *Ibid.*, pp. 50-60.

ants, secretary, and treasurer could be worked out by the children. Necessary committees are chosen by them to do the various things essential to the making of a library. They may even be permitted to earn money to buy books, and keep a record such as is necessary for the running of a real library. At times they may make book reports, give dramatizations from some of the books which have been bought for that specific purpose. Additional projects may be the writing of a class creed, or the writing and acting of a play.*

GRADE SEVEN.—A good seventh-grade project involving many moral situations is a study of the city government. This was undertaken by the pupils in the seventh and eighth grades in the Sedalia, Missouri, public schools. As a result a school building was refurnished and splendidly equipped and a general campaign for appropriate sanitation resulted in a wonderful "clean up" of that section of the city. Other good projects are a school fair, conducting a primary election or a general election.

GRADE EIGHT.—The organization of a "school service club" presents very profitable projects for the eighth grade. Some of the services to be rendered are,—helping small children across dangerous corners and streets, assisting to keep assembly rooms in order, or being of general service at the meetings of the Parent-Teacher Association. Some other good projects are: financing a cafeteria, organizing and conducting savings banks; for girls, serving refreshments at a meeting of the school patrons,

* "Twentieth Year Book, National Society for Study of Education," pp. 92-93.

for some club, or for a Parent-Teacher Association assembly.*

In a recent book † on moral education, J. O. Engleman gives a chapter to the discussion of each of the following media for moral education: school discipline; reading and literature; history; biography; current events; art education; music; science; manual training; play; games; athletics; thrift; and the study of vocations. The book is in point of view an elaborate treatment of a philosophy which the author outlined some years ago ‡ and which has been reëmphasized and elaborated throughout the whole of the present chapter and in some considerable measure throughout the whole book.

An interesting "Children's Code of Morals" has been compiled by the National Institution for Moral Instruction. (See Appendix E.)

PROBLEMS

1. What are the values of and objections to a special period set aside for moral training?
2. Should religious education be made the basis for moral training?
3. Criticize the set of principles enumerated in the chapter.
4. Make a clear-cut distinction between moral training and moral education.
5. Enumerate all the instincts which may be utilized to help in moral training.
6. How much is the personality of the teacher a factor in moral education?
7. List five characters in the colonial period whose outstand-

* See "Twentieth Year Book, National Society for the Study of Education," Part I, pp. 15-114, for numerous projects involving moral situations.
† "Moral Education in School and Home."
‡ Phillips, "Fundamentals in Elementary Education," Ch. 19.

ing characteristics may be made the basis for moral education.

8. Enumerate five characters who contributed to the development of the middle west, pointing out the characteristics worthy of emulation.
9. What character in American history has been of greatest moral value to you? What character in literature?
10. Take each of the elementary school subjects studied in this book and point out values which should function in making good citizens.

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APPENDIX A

"ONE HUNDRED SPELLING DEMONS"

which	can't	guess	they
their	sure	says	half
there	loose	having	break
separate	lose	just	buy
don't	Wednesday	doctor	again
meant	country	whether	very
friend	February	believe	none
business	know	knew	week
many	could	laid	often
some	seems	tear	whole
been	Tuesday	choose	won't
used	wear	tired	cough
always	answer	grammar	piece
where	two	minute	raise
women	too	any	ache
done	ready	much	read
hear	forty	beginning	said
here	hour	blue	hoarse
write	trouble	though	shoes
writing	among	coming	to-night
heard	busy	early	wrote
does	built	instead	enough
once	color	easy	truly
would	making	every	straight
since	dear	through	sugar

APPENDIX B

SUGGESTED MINIMAL SPELLING LIST, ARRANGED BY GRADES

Second Grade—318 Words

add	begin	cart	done
after	belong	case	doctor
ago	best	cat	dog
air	better	catch	dollar
alone	bill	cent	don't
also	bird	chair	door
am	black	change	down
among	block	chicken	draw
an	blue	church	dress
ankle	boat	clerk	drink
are	body	coat	drop
arm	boil	cold	drowned
as	book	comb	dust
ask	both	come	each
asleep	box	copy	ear
at	boy	cost	early
ate	bread	could	east
August	brick	count	even
aunt	bright	cow	ever
away	bring	cross	every
bad	brother	cup	eye
ball	burn	cut	face
bank	but	dark	fair
basket	buy	dead	fall
be	by	dear	far
been	call	December	fast
bear	came	deep	father
bed	candy	did	feed
before	card	dirt	feet
beg	care	do	fence

few
fill
find
fine
first
fix
flower
fly
fowl
foot
for
found
freeze
fresh
from
front
full
game
garden
get
getting
girl
give
go
goes
going
gone
gold
good
got
grass
great
green
ground
grow
guess
had
half
hair
hand
hang
happy
hard
has
hat
have
having
he
head
hear
heard
heart
help
her
here
high
hill
him
himself
his
home
horse
house
how
hungry
hurt
I
ice
if
ill
in
into
invite
is
it
jump
keep
kind
knew
knife
laid
large
late
lay
lazy
leaf
leg
lesson
let
letter
long
make
making
me
meet
men
more
mother
mouse
mouth
my
near
never
new
next
nice
no
nose
not
of
off
on
one
only
our
out
own
paper
pencil
pink
push
put
read
red
road
root
rose
round
run
said
saw
say
school
seed
seven
shall
she
shoe
shut
sick
sister
sit
six
sky
snow
so
soap
store
story
study
tail
take
teeth
ten
than
thank
that
the
theater
them
then
these
they
this
three
time
to
told
took
top
two
under
up
us
was
wash
water
we
well
went

were
west
what
white
who
will
wind
window
word
would
write
writing
wrote
yes
you
young
your

Third Grade—342 Words

about
above
across
act
addition
afraid
again
all
alley
allow
almost
along
always
animal
answer
answers
any
anything
appear
apple
April
around
arrest
attent
autumn
avoid
baby
back
banana
barn
bath
because
become
behind
beneath
beside
between
big
bite
blossom
board
born
bottom
bought
branch
break
breakfast
breath
broke
brown
build
built
bundle
bury
busy
butter
button
cake
car
caught
center
chase
child
children
chimney
circle
city
clean
climb
close
cloth
coarse
color
coming
common
company
control
cook
corner
cotton
cough
cousin
daily
danger
date
daughter
deserve
die
dinner
dish
divide
double
drive
duty
earn
earth
eat
egg
else
empty
end
enough
except
excuse
explain
fail
family
farm
farther
feel
fellow
field
fierce
figure
floor
flour
found
fortune
friend
fruit
gave
glad
good-by
grade
grain
grocery
hall
heavy
herself
hold
hole
hoarse
honest
hope
hour
hundred
inch
inquire
intend
iron

ísland
jail
July
June
just
kill
kitchen
knee
knock
knot
know
lady
last
laugh
learn
leather
leave
left
lemon
lightning
like
listen
little
live
look
lose
lot
loud
love
low
machine
many
mark
master
measure
meat
mice
might
mile
milk
minute
miss
mistake
mistress
Monday
money
month
morning
move
much
music
must
myself
name
naughty
need
news
nickel
night
ninth
noise
noon
north
nothing
notice
now
nut
obey
o'clock
October
often
old
once
open
orange
other
ought
over
pair
parlor
part
party
people
perhaps
pick
picture
pie
piece
place
plain
play
pleasant
point
poor
pound
pretty
prompt
quart
quick
quiet
quite
race
raise
reach
ready
recess
remember
ribbon
ride
right
ring
room
rough
running
safe
Saturday
scissors
see
sell
send
sent
September
severe
snake
ship
short
should
show
side
sing
sleep
sleigh
small
sold
some
something
soon
sorry
south
speak
spell
spring
stand
star
stay
still
stood
stopped
street
sugar
suit
summer
sun
Sunday
supper
sure
swim
table
talk
taste
teacher
tell
themselves
there
thing
think
third
thought
thread
threw
through
throw
Thursday
tire
tired
to-day
toward
town
traction
tree

tried
truly
truth
try
Tuesday
turn
twelve
ugly
uncle
until
upon
use
used
vacation
very
voice
wagon
wait
walk
wall
want
warm
watch
way
wear
week
wet
wheel
when
where
whether
which
while
whisper
whistle
whole
whose
why
winter
wish
with
without
woman
wood
work
worth
wrap
wrapped
written
yard
year
yellow
yesterday
yet

Fourth Grade 216 Words

able
according
account
ache
age
alarm
allowed
angel
attack
author
beginning
believe
biscuit
blanket
breathe
burglar
bushel
cabbage
canoe
capital
carriage
chain
chocolate
circus
civil
class
club
coffee
collar
corn
cottage
country
dentist
depot
desert
discover
dismiss
ditch
division
dream
engine
enjoy
escape
expect
failure
fashion
fear
feather
felt
fight
finish
fire
food
form
forward
furnace
furniture
grammar
guard
guide
gun
hammer
healthy
heat
history
hoping
human
idea
important
Indian
inside
justice
kept
king
labor
land
lawn
life
light
line
linen
lonesome
lying
man
manage
March
market
matter
may
mean
metal
middle
mind
mine
mischief
most
mountain
neighbor
neither
ninety
number
orchard
outside
palace

parade
park
pass
past
pay
peace
period
piano
pigeon
please
pleasure
pledge
pocket
poem
poison
police
post
potato
practice
present
pumpkin
quarrel
question
rain
rapid
reason
receive
recent
regard
remain
roar
roof
same
saucer
scholar
second
seem
sentence
separate
set
several
sew
shadow
shore
shoulder
since
sir
skin
slide
smoker
soldier
son
stairs
start
station
stone
stop
straight
strong
such
sweep
taught
teach
term
thick
those
though
thousand
throat
thunder
together
to-morrow
tongue
too
track
train
travel
trial
trip
trouble
umbrella
unless
village
visit
visitor
waist
war
weather
weigh
win
women
won
wonder
wonderful
world
wreck
wrong

Fifth Grade—164 Words

address
afternoon
against
agreeable
already
although
angry
anxious
army
arrival
article
attention
auto
automobile
awful
bathe
beat
beautiful
bicycle
birth
blow
bruise
business
carpet
cause
cement
chance
coast
collect
column
comfort
concern
concert
couple
course
court
cushion
damage
dangerous
debt
defeat
describe
destroy
different
direction
disappoint
dispute
doubt
edge
equator
everything
exercise
expense
familiar
famous
favorite
fever
fifth
finger
forest
frightened
glass
government
handkerchief

heaven
height
hospital
instead
interest
jealous
journey
judge
language
lawyer
length
level
loose
mail
match
maybe
medicine
merely
modern
narrow
nature
nephew
none
November
object
occupy
ocean
opinion
orphan
ourselves
page
passenger
person
persuade
picnic
pin
plant
position
pour
press
price
problem
promise
proper
railroad
rather
real
reply
rise
river
roll
saddle
sail
scratch
sea
secret
section
select
sense
serious
serve
settle
shepherd
sight
sincerely
size
song
square
state
steal
stock
strange
succeed
success
suggest
supply
suppose
surprise
tear
telegraph
terrible
Thanksgiving
ticket
to-night
true
union
useful
usual
vegetable
view
wake
waste
wave
weak
Wednesday
wide
within
woolen
wound

Sixth Grade—135 Words

absent
accept
acquaintance
advantage
advice
altogether
appetite
application
arrival
assist
assistance
attempt
avenue
baggage
balance
breast
brief
cabin
calendar
captain
catalogue
certain
charge
citizen
clear
climate
coal
contain
decision
diamond
dictionary
difference
due
during
entertain
extreme
factory
favor
finally
foreign
freight
further
general
genuine
glorious
guest
imagine
immediately
importance
impossible
innocent
jewel
least
luncheon
material
mere
museum
national
necessary
newspaper
note
oblige
occasion
odor

office
order
parentage
particular
patient
pavement
peculiar
physical
pity
plan
plenty
political
possible
power
prefer
principal
principle
print
prison
private
punish
purpose
pursue
rate
really
receipt
refer
relief
repair
report
request
restaurant
result
return
review
route
scene
scenery
search
season
sheriff
shine
sign
silver
special
spend
spoil
spread
steady
stomach
strength
student
telephone
temperature
their
thermometer
thin
thorough
trust
unable
understand
valuable
variety
volume
wander
weight
wife
wire

Seventh Grade—96 Words

accident
acknowledge
advertise
amount
apply
appoint
appreciate
arrange
arrangement
association
assure
bargain
benefit
bouquet
campaign
candidate
catarrh
cemetery
century
character
check
college
command
committee
complete
compliment
conduct
consider
continue
convenient
criticize
cylinder
deal
death
decide
desire
disappear
distance
education
effect
effort
experience
gymnasium
honor
illustrate
information
interrupt
invitation
issue
judgment
knowledge
license
manufacture
marriage
mention
minister
moment
mortgage
nuisance
obtain
offer
opportunity
opposite
perfect
personal
physician
practical
prairie
preparation
prepare
privilege
recognize
recommend
reference
relative
religion
remark
remedy
salary
secretary
service
signature
similar
single
sleeve
society
sole
splendid
subject
sufficient
superintendent
system
tariff
therefore
usually
yield

Eighth Grade—14 Words

affair	forenoon
allege	member
argument	proceed
attendance	public
camphor	secure
corpse	treasure
department	vacant

APPENDIX C

A MINIMUM WORD LIST

Compiled by Tidyman in a Study of the Investigations of Jones, Chancellor, Smith, Cook and O'Shea, Studley, and Ware, and Ayres

able	always	aunt	behind
about	among	automobile	believe
absence	amount	avenue	bell
absent	an	awake	belong
accept	and	away	below
accident	angry	awful	berry
account	animal	awhile	besides
across	another	baby	best
act	answer	back	better
add	any	bad	between
addition	anything	baggage	bicycle
address	anyway	ball	big
affair	appear	banana	bill
afraid	apple	band	bird
after	appoint	bank	birth
again	argument	barn	bite
against	arm	basket	black
age	around	bathe	blanket
ago	arrange	be	bleed
agree	arrangement	bean	blind
agreeable	arrest	bear	block
ahead	arrive	beat	bloom
air	ask	beautiful	blossom
alike	asleep	because	blot
all	assist	become	blow
allow	association	bed	blue
almost	assure	been	bluff
alone	attack	before	board
along	attempt	beg	boat
already	attend	begin	body
also	attention	beginning	boil

book
born
both
bother
bottom
bought
box
boy
branch
bread
break
breakfast
breast
brick
bridge
bright
bring
brother
brown
bruise
bug
buggy
build
bump
bunch
bundle
burn
bury
business
busy
but
butter
button
buy
cabin
cake
call
came
camp
can
candy
capital
car
card
care

carpet
carry
case
cat
catch
cattle
cause
cave
ceiling
cellar
cent
center
certain
chain
chair
chance
change
character
charge
chase
check
cheese
chicken
chief
child
children
chimney
choose
chop
Christmas
church
circle
city
class
clean
clear
clerk
climb
close
cloth
cloudy
club
coal
coast
coat

coffee
cold
collect
color
comb
come
comfort
coming
committee
common
company
complete
condition
contain
continue
convenient
cook
copy
corn
corner
cost
cottage
cotton
could
count
country
couple
courage
course
court
cousin
crack
crawl
cross
crow
crowd
cruel
cry
cup
cupboard
custom
cut
daily
damage
damp

dance
danger
dark
date
daughter
day
dead
deal
dear
death
debt
decide
decision
decorate
deep
deer
defeat
delay
dentist
depot
deserve
desire
desk
destroy
diamond
die
difference
different
dinner
direct
dirt
disappear
dish
distance
divide
do
doctor
dog
dollar
done
doubt
down
dozen
draw
dream

dress
drink
drive
drop
drawn
due
during
dust
duty
each
ear
early
earn
earth
east
easy
eat
edge
education
effect
effort
egg
eight
either
election
else
end
engine
enjoy
enough
entertain
escape
especially
even
evening
ever
every
everything
examination
examine
except
expect
expense
experience
explain
express
eye
face
fact
factory
fail
failure
fair
fall
familiar
family
famous
far
farm
farther
fast
father
favor
fear
feather
feed
feel
feet
fell
fellow
felt
fence
fever
few
field
fierce
fifth
fifty
fight
figure
fill
finally
find
fine
finger
finish
fire
first
fish
five
fix
floor
flour
flower
folks
follow
food
foot
football
force
forenoon
forest
forget
fork
form
fort
fortune
forty
forward
found
foundation
four
free
freeze
freight
fresh
friend
frighten
from
front
fruit
full
furnace
furniture
further
future
game
garden
gas
gather
gave
general
get
girl
give
glad
glass
go
gold
gone
good
good-by
goose
government
grab
grade
grain
grand
grapes
grass
grave
gray
grease
great
green
grocery
ground
grow
guard
guess
guest
guide
hair
half
hall
hammer
hand
handkerchief
handle
hang
happen
happy
hard
harness
hat
hate
haul
have
hay
he

head
healthy
hear
heard
heart
heat
heaven
heavy
heel
height
hello
help
her
here
herself
hide
high
hill
him
himself
history
hold
home
honest
honor
hope
horn
horse
hospital
hour
house
how
however
hundred
hungry
hunt
hurry
hurt
husband
ice
idle
if
ill
imagine
importance
impossible
in
inch
indeed
industry
information
inside
intend
interest
into
invitation
invite
iron
jail
jewel
journey
judge
judgment
juice
just
keep
kill
kind
kindness
king
kiss
kitchen
kitten
knee
knew
knife
knock
know
knowledge
lady
lake
land
large
last
late
laugh
law
lawn
lawyer
lay
lazy
lead
leaf
lean
learn
least
leave
left
leg
lemon
length
lesson
let
letter
level
lie
life
light
like
line
list
listen
little
live
lonesome
long
look
loose
lose
lot
loud
love
low
lumber
lunch
lungs
machine
madam
made
mail
make
man
manage
manners
many
march
mark
market
marriage
marry
master
match
matter
maybe
me
meal
mean
measure
meat
medicine
member
men
mend
mention
merry
middle
might
mile
milk
mill
mind
mine
minute
miss
mistake
mix
money
month
moon
more
morning
most
mother
mountain
mouse
mouth
move
much
mud
must

myself
nail
name
narrow
nature
naughty
near
nearly
necessary
neck
need
negro
neighbor
neither
never
new
newspaper
next
nice
nickel
night
nine
ninety
no
noble
noise
none
north
nose
not
note
nothing
notice
now
number
nurse
nut
object
occasion
occupy
ocean
o'clock
of
off
offer
office
often
oil
old
omit
on
once
one
onion
only
open
opinion
opposite
orange
orchard
order
other
ought
our
ourselves
out
outside
over
own
package
page
paid
pail
paint
pair
paper
parents
park
parlor
part
particular
party
pass
past
pay
peanut
pear
peculiar
pen
pencil
people
perfect
perhaps
period
person
personal
piano
pick
picnic
picture
pie
piece
pin
pink
pity
place
plain
plan
plant
play
pleasant
please
pleasure
plenty
pocket
point
poison
police
poor
popular
porch
position
possible
possibly
post
potato
pound
pour
power
prefer
present
president
press
pretty
price
principal
print
prison
private
probably
proceed
promise
prompt
proper
property
pull
pump
pumpkin
punish
pure
purpose
purse
push
put
quarrel
queer
question
quick
quiet
quite
race
railroad
rain
raise
raisins
rake
ranch
rate
rather
reach
read
ready
real
really
reason
receipt
receive
recent
recommend
red

refer
relative
relief
remains
remark
remember
rent
repair
repeat
reply
report
request
rest
result
return
ribbon
rich
ride
right
ring
river
road
roar
rock
roll
roof
room
rope
rough
round
row
rubber
rug
rule
run
rush
sack
sad
safe
said
sail
salary
same
satisfy
saw
say
school
scratch
sea
search
second
secret
secretary
section
secure
see
seed
seem
seen
select
sell
send
sense
sent
separate
serve
service
set
settle
seven
several
sew
shade
shadow
shake
shall
shape
sharp
she
shed
sheep
shell
shine
ship
shirt
shock
shoe
shop
short
should
shoulder
shout
shovel
show
shut
sick
side
sight
sign
silk
silver
simple
since
sing
sink
sir
sister
sit
sixty
size
skate
skin
sky
sleep
sleeve
slide
slip
small
smell
smile
smoke
smooth
snake
snow
so
soap
society
soft
soil
sold
sole
solid
some
somebody
something
son
song
soon
sorrow
sorry
sound
soup
south
sow
speak
special
spell
spend
spirit
splendid
spoil
spoon
sport
spread
spring
square
stock
stairs
stamp
stand
star
start
state
station
stay
steady
steal
steel
steep
stick
stiff
still
stockings
stone
stood
stop
store
storm
story
stove

straight
strange
straw
street
strike
string
struck
study
stuff
subject
succeed
such
sudden
suggest
suit
sum
summer
supper
supply
support
suppose
sure
surprise
sweat
sweep
sweet
swim
swing
system
table
tablet
tack
tail
take
talk
taste
tax
teach
teacher
team
tear
tease
telephone
tell
ten
term
terrible
than
thank
that
the
theater
their
them
themselves
then
there
therefore
these
they
thick
thin
thing
think
third
thirty
this
those
though
thought
thousand
thread
three
throat
through
throw
thunder
ticket
tie
tight
time
tip
tire
to
to-day
together
told
to-morrow
tongue
to-night
too
took
tooth
top
total
touch
toward
town
toy
track
train
tramp
travel
traveler
treasure
tree
trip
trouble
true
truly
trunk
trust
truth
try
turkey
turn
twelve
twenty
twice
two
ugly
unable
uncle
under
understand
unless
until
up
upon
use
useful
usual
vacation
vegetables
very
vessel
view
village
visit
visitor
voice
volume
vote
wagon
wait
wake
walk
wall
want
war
warm
wash
waste
watch
water
wave
way
we
weak
wear
weather
weed
week
weigh
weight
well
went
were
west
wet
what
wheat
wheel
when
where
whether
which
while
whip
whistle

white	winter	word	year
who	wire	work	yellow
whole	wish	world	yes
whom	with	worry	yesterday
why	within	worth	yet
wide	without	wound	you
wife	woman	wreck	young
will	women	write	your
win	wonder	wrong	
wind	wonderful	wrote	
window	wood	yard	

APPENDIX D

A MINIMAL LIST OF ESSENTIALS IN THE TEACHING OF UNITED STATES HISTORY, AS COMPILED BY PROFESSOR W. C. BAGLEY

Capital letters indicate that the topic or name is found in each of the twenty-three text-books.

Lower case type without parentheses indicate that the name of the topic is found in at least three-fourths of the twenty-three books.

Printing in lower case within parentheses indicates that the topic is found in fewer than three-fourths of the books, but either it is found in so large a proportion to warrant its inclusion or that it is recommended by the "Committee of Eight" or both.

The plus sign (+) and the minus sign (—) appearing after certain topics indicate that the amount of space devoted to the topic has either noticeably increased or decreased during the four periods of publication.

The asterisk (*) is used to mark the topics recommended by the "Committee of Eight."

I. Period of Discovery and Exploration

Topics

*AMERICA BEFORE COLUMBUS (—)
- *DISCOVERIES OF THE NORTHMEN
- The Indians
- The Mound-Builders

*EUROPEAN BACKGROUND (+)
- *The Crusades
- *Trade with the Orient and demand for sea-routes
- *Geographical knowledge at the close of the fifteenth century

Topics	
*SPANISH EXPLORATION AND SETTLEMENTS	COLUMBUS Magellan De Soto Balboa Cortez De Leon (Coronado)
*PORTUGUESE EXPLORATIONS	Da Gama
*FRENCH EXPLORATIONS AND SETTLEMENTS	Verrazano Cartier (Champlain)
*DUTCH EXPLORATIONS	(Hudson)
*ENGLISH EXPLORATIONS	John and Sebastian Cabot RALEIGH Gilbert Drake White (Frobischer)

II. Period of Colonial Development (—)

*PLYMOUTH AND MASSACHUSETTS BAY	
*Pilgrims and Puritans in England	
*Voyage of the *Mayflower* and *Mayflower* compact (—)	
*Settlement of Plymouth	Massasoit (Miles Standish) (William Bradford)
*Settlement of Boston and vicinity	JOHN ENDICOTT
Charter difficulties	
Witchcraft (—)	
The people of colonial New England (+)	
(Founding of Harvard University)	
*RHODE ISLAND: settlement of Providence	ROGER WILLIAMS
*CONNECTICUT	
*Settlements at Hartford and New Haven (—)	(Thomas Hooker)

Topics	
*CONNECTICUT—*Continued*	
First written constitution (—)	
Pequot war (—)	
(King Philip's war) (—)	
(Charter difficulties and "Charteroak" episode)	SIR EDMOND ANDROS
*NEW YORK	
*First settlement	
Dutch rule (—)	Peter Stuyvesant
English conquest and rule	
(Geisler's rebellion?)	
(Patroon system?)	
New Jersey	
Grants to Berkeley and Carteret	Lord John Berkeley
(Settlements)	George Carteret
Division in East and West Jersey	
(Creation of a royal colony)	
*PENNSYLVANIA	
*William Penn and the Quakers	
Grants to Penn	WILLIAM PENN
*Founding of Philadelphia	
The "Great treaty" (—)	
(Mason and Dixon line)	
Delaware: settlements (—)	Lord de la Ware
*Maryland	
The Calverts	George Calvert (Lord Baltimore)
(Settlements)	
Claiborne's rebellion	William Claiborne
The Toleration act	
(Charter and government)	
*VIRGINIA	
*Settlement at Jamestown (—)	John Rolfe John Smith (—)
"Starving time" (—)	Sir Thomas Dale Pocahontas (—) Powhatan
*First representative assembly	
*Slavery introduced	SIR WILLIAM BERKELEY
Bacon's rebellion	Nathaniel Bacon
(Indian troubles)	
(Tobacco culture)	
(Indentured servants)	

Topics	
*VIRGINIA—*Continued*	
The Carolinas	
Settlements	
The "Grand model"	(John Locke)
(Huguenots)	
(Division into North and South Carolina)	
(Rice and indigo culture)	
Georgia	
Oglethorpe's plan	JAMES OGLETHORPE
Spanish invasion	
(Settlement of Savannah)	

III. Colonial Wars (—)

*King William's war (—)	
*Causes (+)	
Port Royal (—)	
(European background)	
(Treaty of Ryswick) (+)	
(Schenectady)	
(Haverhill)	
*Queen Anne's war (—)	
*Causes (+)	
Port Royal (—)	
Treaty of Utrecht (—)	
King George's War (—)	
Causes	
Siege of Louisburg (—)	
Treaty of Aix-la-Chapelle (+)	
*FRENCH AND INDIAN WAR	
*EUROPEAN BACKGROUND	WILLIAM PITT (Edmund Burke)
*CAUSES (+)	
WASHINGTON'S JOURNEY TO THE FRENCH POSTS (—)	WASHINGTON Dinwiddie
BUILDING OF FORT DUQUESNE (—)	
*BRADDOCK'S DEFEAT (+)	BRADDOCK
*CONQUEST OF QUEBEC (—)	WOLFE Montcalm
TREATY OF PARIS (+)	
Fort Necessity (—)	
Acadian exile (—)	

Topics	
*FRENCH AND INDIAN WAR—*Continued*	
Forbes' expedition (—)	
Reduction of Louisburg (—)	
Ticonderoga	
(Albany convention)	

IV. Pre-Revolutionary Period (+)

*POLITICAL, SOCIAL, AND INDUSTRIAL CONDITIONS IN THE COLONIES (+ + +)	
*POLICY OF ENGLAND TOWARD THE COLONIES	(George III) William Pitt
STAMP ACT	Samuel Adams James Otis
BOSTON MASSACRE	Gage
*TOWNSHEND ACTS	
BOSTON TEA-PARTY	
BOSTON PORT BILL	
WRITS OF ASSISTANCE	
*FIRST CONTINENTAL CONGRESS	PATRICK HENRY
*RESULTS OF ENGLAND'S POLICY	
(Committees of correspondence)	

V. The War of the Revolution (—)

	S. Adams Otis
*EUROPEAN BACKGROUND (ENGLAND AND FRANCE)	FRANKLIN William Pitt George III
*LEXINGTON AND CONCORD	GAGE
*BUNKER HILL (—)	Prescott Putnam
SIEGE OF BOSTON (—)	HOWE (Gen.)
CROWN POINT AND TICONDEROGA	Allen
WASHINGTON ASSUMES COMMAND	WASHINGTON

Topics	
*DECLARATION OF INDEPENDENCE	Jefferson
*LONG ISLAND (—)	Howe (Admiral)
*RETREAT THROUGH NEW JERSEY (—)	
*VALLEY FORGE	LAFAYETTE De Kalb Sullivan
*TRENTON (—)	
*PRINCETON (—)	
*BURGOYNE'S CAMPAIGN (+)	BURGOYNE Gates Schuyler Stark Morgan Chas. Lee
MONMOUTH (—)	CLINTON
*ARNOLD'S TREASON (—)	ARNOLD Andre
*COWPENS	GREENE
CAMDEN	CORNWALLIS Lincoln
*GUILDFORD COURT HOUSE (—)	
*YORKTOWN (—)	
*TREATY OF PARIS	
The invasion of Canada (— —)	Montgomery
Fort Moultrie (—)	
Brandywine	
Stony Point	Wayne
Guerilla warfare in the south (—)	Marion Sumter Pickens "Lighthorse Harry" Lee
Eutaw Springs (—)	
*King's Mountain	
*Savannah (—)	Jones
*Naval encounters	Clark
*Expedition of George Rogers Clark (+) (Organization under Articles of Confederation)	

VI. The Period from 1783 to 1812 (+ + +)

Topics	
SOCIAL CONDITIONS UNDER THE CONFEDERATION	
*POLITICAL CONDITIONS UNDER THE CONFEDERATION (+ + +)	
*TERRITORIAL GROWTH AND EXPANSION (NORTHWEST TERRITORY AND LOUISIANA PURCHASE (+ + +)	
*WASHINGTON'S ADMINISTRATIONS	WASHINGTON
*ADAMS' ADMINISTRATION (+)	JOHN ADAMS
*JEFFERSON'S ADMINISTRATIONS	JEFFERSON
MADISON'S ADMINISTRATION TO 1812 (—)	MADISON
*Constitutional Convention (+ +)	
*Adoption and ratification of the Constitution	Franklin
*First presidential election	
*Washington's inauguration (—)	
*Formation of Washington's cabinet (+)	H. Knox
National-bank and currency issues	HAMILTON Marshall
Rise of political parties (+ +)	BURR
The new capital (—)	
Indian troubles (—)	Tecumseh W. H. Harrison
*Relations with France	NAPOLEON Genet
Relations with England	
*Jay's treaty (—)	Jay
Chesapeake affair (—)	
*Alien and sedition acts (+)	
Burr's conspiracy	
Invention of steamboat	Fulton
*Lewis and Clark expedition (+ +)	Lewis Clark
(Barbary States troubles and treaties)	Pinckney (Decatur)
(Whisky rebellion)	
(Shays' rebellion)	(Shays?)
(Ordinance of 1787) (+ +)	

VII. The Period from 1812 to 1861 (+ +)

Topics	
A. *THE WAR OF 1812 (—)	
*CAUSES	MADISON Tecumseh W. H. Harrison
*SURRENDER OF DETROIT	Isaac Hull
*NAVAL BATTLES	Wiliam Hull Lawrence O. H. Perry McDonough
*BURNING OF WASHINGTON	
*TREATY OF GHENT	
*NEW ORLEANS	JACKSON
Hartford convention	
B. THE WAR WITH MEXICO (—)	
*CAUSES	
BUENA VISTA (—)	TAYLOR SANTA ANA
VERA CRUZ (— — —) CERRO GORDO (— — —)	SCOTT
*CAPTURE OF THE CITY OF MEXICO (— — —)	
*MONTEREY AND CALIFORNIA (— —)	FREMONT KEARNY
*RESULTS OF WAR: TERRITORIAL ACCESSIONS	
*Texan independence and admission	
C. *POLITICAL AFFAIRS, INCLUDING SLAVERY PROBLEMS (+)	MADISON MONROE J. Q. ADAMS
*CAUSES OF FRICTION BETWEEN NORTH AND SOUTH (+ +)	JACKSON VAN BUREN HARRISON
*THE MISSOURI COMPROMISE (+ +)	TYLER J. K. POLK
*CALIFORNA AND THE COMPROMISE OF 1850	ZACHARY TAYLOR CLAY
FUGITIVE SLAVE LAW	MILLARD FILLMORE PIERCE

Topics	
C. *POLITICAL AFFAIRS—*Continued*	
*KANSAS - NEBRASKA LAW AND RELATED EVENTS 1854	Buchanan
*JOHN BROWN'S RAID	
Wilmot proviso	Webster Calhoun
*Drew Scott devision	Douglas
Work and influence of the abolitionists (+ + +)	Lincoln John Brown
(Lincoln-Douglas debates)	(Garrison) (Sumner)
D. *INVENTION, INDUSTRY, AND COMMERCE (+ + +)	
Invention of the telegraph (+ + +)	Morse
Other inventions (+ + +)	(Cyrus McCormick) (Samuel Slater) (Howe)
*Railroads and related topics (+ + +)	
*Canal Development (+ + +)	(De Witt Clinton)
(The Industrial revolution) (+ +)	
(Mining development (+ +)	
E. FOREIGN AFFAIRS (+ + +)	
*Monroe doctrine and related events (especially struggle for independence in Spanish America)	(Bolivar)
Other foreign affairs (+ + +)	Dorr
F. FINANCE	
*UNITED STATES-BANK ISSUE (+)	
TARIFF DISCUSSION AND LEGISLATION (+ +)	
*Financial panics (especially 1837)	
Currency problems	
G. TERRITORIAL GROWTH AND EXPANSION (—)	
ADMISSION OF NEW STATES (—)	
*Mexican cessions	
Florida	
The Oregon country (+ +)	
*Settlement of the west	

VIII. The Civil War (—)

Topics	
*SECESSION	LINCOLN DAVIS Scott
*FORT SUMTER AND EVENTS IMMEDIATELY ASSOCIATED (—)	ANDERSON BEAUREGARD
*BULL RUN	McDOWELL T. J. JACKSON
*TRENT AFFAIR	MASON SLIDELL Wilkes
*THE BLOCKADE	
*THE PENINSULAR CAMPAIGN (—)	LEE McCLELLAN
*FORTS HENRY AND DONELSON	GRANT Foote
*SHILOH	A. S. Johnston BUELL
NEW ORLEANS (——)	FARRAGUT
**MERRIMAC AND MONITOR* (—)	Ericsson (Worden)
*ANTIETAM	
*FREDERICKSBURG	BURNSIDE
*EMANCIPATION PROCLAMATION	
*CHANCELLORSVILLE	HOOKER
*GETTYSBURG	MEADE (Pickett)
*VICKSBURG (—)	SHERMAN Pemberton
*CHICKAMAUGA	BRAGG THOMAS ROSECRANS
*BATTLES AROUND CHATTANOOGA (——)	J. E. JOHNSTON
*THE WILDERNESS CAMPAIGN	
*ATLANTA AND SHERMAN'S MARCH	HOOD
EARLY'S RAID	EARLY
SHERMAN'S CAMPAIGN (—)	SHERIDAN
FALL OF RICHMOND	
APPOMATTOX	
ASSASSINATION OF LINCOLN	
CONTEST FOR MISSOURI	Fremont Pope

Topics

TERRITORIAL GROWTH AND EXPANSION—*Continued*

Murfreesboro
Mobile Bay
Nashville
Morgan's raid
The Baltimore incident
Admission of West Virginia
New York draft riots
Roanoke Island
Red River expedition Banks

APPENDIX E

CHILDREN'S CODE OF MORALS FOR ELEMENTARY SCHOOLS

By William J. Hutchins

MORAL CODE FOR BOYS AND GIRLS

Boys and girls who are good Americans try to become strong and useful, that our country may become ever greater and better. Therefore they obey the laws of right living which the best Americans have always obeyed.

I

The Law of Health

The Good American Tries to Gain and to Keep Perfect Health

The welfare of our country depends upon those who try to be physically fit for their daily work. Therefore:

1. I will keep my clothes, my body and my mind clean.
2. I will avoid those habits which would harm me, and will make and never break those habits which will help me.
3. I will try to take such food, sleep and exercise as will keep me in perfect health.

II

The Law of Self-Control

The Good American Controls Himself

Those who best control themselves can best serve their country.

1. I will control my *tongue,* and will not allow it to speak mean, vulgar or profane words.

2. I will control my *temper,* and will not get angry when people or things displease me.

3. I will control my *thoughts,* and will not allow a foolish wish to spoil a wise purpose.

III

The Law of Self-Reliance

The Good American Is Self-Reliant

Self-conceit is silly, but self-reliance is necessary to boys and girls who would be strong and useful.

1. I will gladly listen to the advice of older and wiser people; I will reverence the wishes of those who love and care for me, and who know life and me better than I; but I will learn to think for myself, choose for myself, act for myself.

2. I will not be afraid of being laughed at. I will not be afraid of doing right when the crowd does wrong. Fear never made a good American.

IV

The Law of Reliability

The Good American Is Reliable

Our country grows great and good as her citizens are able more fully to trust each other. Therefore:

1. I will be honest, in word and in act. I will not lie, sneak, or pretend, nor will I keep the truth from those who have a right to it.

2. I will not do wrong in the hope of not being found out. I cannot hide the truth from myself and cannot often hide it from others.

3. I will not take without permission what does not belong to me.

4. I will do promptly what I have promised to do. If I have made a foolish promise, I will at once confess my mistake, and I will try to make good any harm which my mistake may have caused. I will so speak and act that people will find it easier to trust each other.

V

The Law of Clean Play

The Good American Plays Fair

Clean play increases and trains one's strength, and helps one to be more useful to one's country. Therefore:

1. I will not cheat, nor will I play for keeps. If I should not play fair, the loser would lose the fun of the game, the winner would lose his self-respect, and the game itself would become a mean and often cruel business.
2. I will treat my opponent with courtesy.
3. If I play in a group game, I will play, not for my own glory, but for the success of my team and the fun of the game.
4. I will be a good loser or a generous winner.

VI

The Law of Duty

The Good American Does His Duty

The shirker or the willing idler lives upon the labor of others, burdens others with the work which he ought to do himself. He harms his fellow-citizens, and so harms his country.

I will try to find out what my duty is, *what I ought to do,* and my duty I will do, whether it is easy or hard. What I ought to do I can do.

VII

The Law of Good Workmanship

The Good American Tries to do the Right Thing in the Right Way

The welfare of our country depends upon those who have learned to do in the right way the things that ought to be done. Therefore:

1. I will get the best possible education, and learn all that I can from those who have learned to do the right thing in the right way.

2. I will take an interest in my work, and will not be satisfied with slipshod and merely passable work. A wheel or a rail carelessly made may cause the death of hundreds.

3. I will try to do the right thing in the right way, even when no one else sees or praises me. But when I have done my best, I will not envy those who have done better, or have received larger reward. Envy spoils the work and the worker.

VIII

The Law of Team-work

The Good American Works in Friendly Coöperation with His Fellow-Workers

> One man alone could not build a city or a great railroad. One man alone would find it hard to build a house or a bridge. That I may have bread, men have sowed and reaped, men have made plows and threshers, men have built mills and mined coal, men have made stoves and kept stores. As we learn better how to work together, the welfare of our country is advanced.

1. In whatever work I do with others, I will do my part and will help others do their part.

2. I will keep in order the things which I use in my work. When things are out of place, they are often in the way, and sometimes they are hard to find. Disorder means confusion, and the waste of time and patience.

3. In all my work with others, I will be cheerful. Cheerlessness depresses all the workers and injures all the work.

4. When I have received money for my work, I will be neither a miser nor a spendthrift. I will save or spend as one of the friendly workers of America.

IX

The Law of Kindness

The Good American Is Kind

> In America those who are of different races, colors, and conditions must live together. We are of many different sorts, but we are one great people. Every unkindness hurts the common life, every kindness helps the common life. Therefore:

1. I will be kind in all my *thoughts*. I will bear no spites or grudges. I will not think myself above any other girl or boy just because I am of a different race or color or condition. I will never despise anybody.

2. I will be kind in all my *speech*. I will not gossip nor will I speak unkindly of anyone. Words may wound or heal.

3. I will be kind in all my *acts*. I will not selfishly insist on having my own way. I will always be polite. Rude people are not good Americans. I will not trouble unnecessarily those who do work for me. I will do my best to prevent cruelty, and will give my best help to those who need it most.

X

The Law of Loyalty

The Good American Is Loyal

If our America is to become ever greater and better, her citizens must be loyal, devotedly faithful, in every relation of life.

1. I will be loyal to my family. In loyalty I will gladly obey my parents or those who are in their place. I will do my best to help each member of my family to strength and usefulness.

2. I will be loyal to my school. In loyalty I will obey and help other pupils to obey those rules which further the good of all.

3. I will be loyal to my town, my state, my country. In loyalty I will respect and help others to respect their laws and their courts of justice.

4. I will be loyal to humanity. In loyalty I will do my best to help the friendly relations of our country with every other country, and to give to everyone in every land the best possible chance.

If I try simply to be loyal to my family, I may be disloyal to my school. If I try simply to be loyal to my school, I may be disloyal to my town, my state and my country. If I try simply to be loyal to my town, state and country, I may be disloyal to humanity. I will try above all things else to be loyal to humanity; then I shall surely be loyal to my country, my state and my town, to my school and to my family.

And he who obeys the laws of loyalty obeys all of the other nine laws of The Good American.

National Institute for Moral Instruction
Chevy Chase, Washington, D. C.

10 May, '19

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